Fort Sumter
Fort Sumter National Monument, entrance to
Charleston Harbor, 3-1/4 miles southeast
of the Battery
Charleston
Charleston County
South Carolina

HABS No. SC-194

An addendum to
Fort Sumter
Fort Sumter National Monument
Charleston Vicinity, South Carolina
in HABS Catalog Supplement (1959)

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Eastern Office, Design and Construction
143 South Third Street
Philadelphia, Pennsylvania

HISTORIC AMERICAN BUILDINGS SURVEY HABS No. SC-194

FORT SUMTER

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An addendum to
Fort Sumter
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Charleston Vicinity, South Carolina
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Address: Fort Sumter National Monument, entrance to Charleston Harbor, 3-1/4 miles southeast of the Battery, Charleston, Charleston County, South Carolina.

Present Owner: United States Government. Administered by the National Park Service of the Department of the Interior; the superintendent, whose office is located in Fort Moultrie on Sullivan's Island, Charleston County, South Carolina, is in immediate charge.

Present Use: National historical monument.

Statement of Significance: The defense of this fort by its Union garrison marked the beginning of the Civil War; the existing remains display interesting structural features.

PART IA. HISTORICAL INFORMATION (this part was supplied by Omega G. East, Historian, National Park Service, Fort Sumter National Monument).

Two forts form Fort Sumter National Monument: Fort Sumter located in mid Charleston Harbor and Fort Moultrie a mile opposite on Sullivan's Island. These flank the main ship channel into Charleston Harbor.

Federal troops under Major Robert Anderson formed Fort Moultrie's garrison as the national crisis grew ominous. With the secession of South Carolina in 1860, Anderson regarded his position on Sullivan's Island as being untenable, and moved his troops to still-incomplete Fort Sumter.

On April 12, 1861, a mortar shell fired from Fort Johnson, also in Charleston Harbor, burst almost directly over Fort Sumter, and the tragedy of the American Civil War had begun. Thirty-four hours of heavy bombardment forced Anderson to surrender. Sumter became a symbol--the Union dedicated to its recapture; the Confederacy, to holding it at any cost. The attack unified the North in support of the war to uphold the Union, and President Lincoln forthwith called for 75,000 volunteers. For the South in Charleston Harbor there followed two years of strengthening Confederate defenses; Forts Sumter and Moultrie were made into strong points.

In 1863 Federal ironclad ships attacked, and Sumter became the scene of a gallant defense. The Federals struck again that year with a land bombardment from Morris Island which lasted for 17 months--the greatest bombardment in American history. Fort Sumter commemorates both the "first shot" of 1861 and the Confederate defense of 1863-65.

For a more complete history of Fort Sumter see:

> Frank Barnes, Fort Sumter, National Park Service Historic Handbook Series No. 12 (Washington, D. C., 1952, revised 1962).

PART IB. PHYSICAL HISTORY (This part was abstracted from Frank Barnes, Fort Sumter).

1. Original and subsequent owners: When construction began it was assumed that the site belonged to the Federal Government; in 1834, however, William Laval of Charleston, South Carolina claimed ownership. Laval's claim was invalidated by act of the South Carolina Legislature in 1837, but it was not until November 22, 1841 that the Federal Government's title to 125 acres of harbor "land" was duly recorded in the office of the Secretary of State of South Carolina. From April 1861 to April 1865, the fort belonged to the Confederacy, through capture. From the latter date to the present it has continued in possession of the United States Government. It was established as a National Monument by act of Congress on April 28, 1948.

2. Date of erection: Begun early in 1829, discontinued from late in 1834 to 1841, and continued until the outbreak of war in 1861, at which time it was not quite complete.

3. Builders: Construction from 1829 to 1834 was under the direction of Lt. Henry Brewerton, Corps of Engineers. Resumption of work in 1841 was directed by Capt. A. H. Bowman.

4. Original plans: Plans were drawn in 1827; they called for a symmetrical (but otherwise irregular) pentagon with its axis extending northeast-southwest. Five-foot-thick brick walls rose 48' above low water. Four sides, 170 to 190' long, were designed for three tiers of guns; the gorge, 317' long designed for officers' quarters, supported guns only on the third tier. A sally port pierced the gorge (on the southwest side), opening to a quay and a wharf. At the interior was a pentagonal parade ground. Foundations consisted of a rock mass to be laid over the shoal; it was originally intended to cover the rock mass with a continuous grillage of timbers. In 1841 the idea of a timber grillage was abandoned and granite was substituted. The fort was planned for 135 guns but only 60 were installed before the bombardment in 1861.

5. Alterations and additions: Damage was inflicted by the April 1861 bombardment, and considerably more damage by bombardments in 1863-65. During this time, work on the fortifications was limited to earthworks, supplemented with timber. During the 1870's ruined portions and rubble were cleared, and the outer walls of the gorge and right flank were partially rebuilt. In 1899-1901 a concrete emplacement for two long-range rifled cannon, named Battery Huger, was constructed in the central portion of the fort.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. Architectural character: A mid-19th century masonry fort, partially preserved, located on an island.

2. Condition of fabric: The lower (of two) tier of casemates is mostly extant but the officers' quarters and enlisted men's barracks retain only the lower portions of their walls. Exterior walls are in place, up to the top of the first tier of casemates. The existing masonry work is mostly well maintained. The parade ground is about two-thirds filled with earth and with the concrete gun-emplacements of Battery Huger.

B. Technical Description

1. Over-all dimensions: The sides of the pentagon are, respectively, beginning with the gorge, 317', 170', 190', 190' and 170' (approximately). The gorge forms the southwest side; the axis of symmetry is perpendicular to it.

2. General plan: A hollow pentagon with gun rooms on four sides and remains of officers' quarters on the fifth (the gorge); there are remains of enlisted men's barracks on the two sides (flanks) adjacent to the gorge.

3. Exterior wall: This stands about 15'-6" high, above ground level; it is of so-called "Charleston brick", about four courses to one foot in height, laid in lime mortar (many places repointed with cement mortar). Thickness is 5'-0". The exterior wall is strengthened by the adjoining piers and vaults of the casemates.

4. Typical bay of gun rooms or casemates: Each bay is 20'-7" wide and 22'-1" deep, covered with a segmental brick barrel vault whose axis is perpendicular to the exterior wall. The crown of the vault is approximately ten feet above ground level. The vault springs from segmental

brick transverse arches. An embrasure in the exterior wall is centered on each bay.

The gun rooms of the left flank (northwest side) and the right face (northeast side) still have their first-story vaulting; those of the left face (north side) have only their piers.

5. Embrasures: All embrasures except those on the left flank (northwest side) have been closed up with brick. Openings are rectangular with rounded corners; the narrowest portion occurs within the thickness of the wall, the opening widening a little at the exterior face and widening considerably at the interior face, where the opening is trimmed with sandstone. There is a heavy segmental relieving arch over the inside face of each bay. The surface of the embrasure reveals, except for the inner portion of sandstone, is of concrete containing broken brick and shell aggregate.

   A few openings retain rusted iron hardware across the top, on the inner face, which once carried shutters. The nature of these shutters and their manner of operation are not clear.

6. New sally port: In the 1870's the present sally port was opened near the center of the left flank (northwest side). The opening is 8'-0" by 8'-0", trimmed with granite, with a flat arch. A simple granite pediment ornaments the exterior.

7. Postern gate: At the left gorge angle a narrow opening (2'-9") penetrates an angle pier; its exterior edges are of broken bricks.

8. Officers' quarters: Remaining walls extend only a few feet above ground; they are of brick and tabby faced with brick. Window sills are of marble and thresholds are of granite. A powder magazine, damaged by explosion, remains at the northwest end of the gorge. Only the northwest third of the gorge has been excavated.

9. Fireplaces: Several brick fireplaces remain in the barracks and officers' quarters.

10. Flooring: The first floor appears to have been of brick, laid on the ground; some areas remain. The gun rooms are now floored with concrete of uncertain date.

11. Battery Huger: This large concrete structure, built

1899-1901, occupies the central axial part of the fort. A modern museum containing exhibits relating to the history of Fort Sumter occupies one large gun emplacement.

C. Site: The fort is surrounded by water, except for a small area of ground (esplanade) at the southwest, adjacent to the gorge. The original sally port (now closed) once opened to the esplanade. A modern pier and boat landing adjoin the new sally port, constituting the only present access to the fort.

Prepared by Harley J. McKee, Architect
National Park Service
August 1963.

Addendum to:
FORT SUMTER
Fort Sumter National Monument
Charleston Vicinity
Charleston County
South Carolina

HABS NO. SC-194

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF DRAWINGS

Historic American Buildings Survey
National Park Service
Department of the Interior
P.O. Box 97127
Washington, DC 20013-7127

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HISTORIC AMERICAN BUILDINGS SURVEY

Addendum To: FORT SUMTER

HABS NO. SC-194

Location: Fort Sumter is located at the mouth of the Charleston Harbor, Charleston vicinity, Charleston County, South Carolina. It is reached from a dock at the Fort Sumter National Monument Visitors Center located across from Fort Moultrie, 1214 Middle Street, Sullivan's Island, Berkley County, South Carolina.

Present Owner: The fort is the property of the National Park Service, Department of the Interior.

Present Use: The fort is an interpreted National Monument and can be toured during the summer months. A tour boat takes visitors from the visitor's center to the fort for a NPS operated tour. There is also a museum at Fort Sumter.

Significance: Fort Sumter was one of a series of coastal fortifications built by the Federal government after the War of 1812. The five-sided fort, built between 1829 and 1860, guarded the mouth of the Charleston Harbor. On April 12, 1861, Fort Sumter was the site of the battle that began the Civil War. Union occupation of the fort following the secession of the southern states and the formation of the Confederate States of America led to the ensuing battle and the eventual taking of the federally owned fort by the confederate forces. Over the course of the Civil War, Fort Sumter was designated a National Monument on April 28, 1948.

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INTRODUCTION

Fort Sumter--named for Revolutionary War hero, Brigadier General Thomas Sumter[1]--sits atop a sand shoal which extends out from James Island, guarding the mouth of Charleston Harbor. It was one of a series of coastal fortifications built by the U.S. Government following the War of 1812. The fort's rock foundations were begun in 1829, although when occupied thirty years later, the fort was still incomplete. The conflict that occurred at Fort Sumter on April 12, 1861, was the spark that ignited the Civil War. Mounting tensions between the north and south, largely over the slavery issue, had been threatening secession of the southern states for some time. Then on December 20, 1860, southerners took decisive action by signing into law secession and the formation of the Confederate States of America (CSA). Although President Buchanan and his administration was refusing to recognize southern sovereignty, on the night of the 26th, Major Anderson and his men of the Union forces occupied Fort Sumter. The ensuing battle and eventual overtaking of the fort by the confederate forces was the first battle of the Civil War. Subsequent conflicts would be fought over Fort Sumter, but for the next four years, it would remain a southern stronghold and a symbol of northern aggression.

The period from December 20, 1860 to April 12, 1861, was one of the most momentous periods in Civil War history. The United States was trying desperately to avoid "collision" with the southern states, but their succession and the resulting formation of the Confederacy--aggravated by the possible recognition of the C.S.A. by several European countries--made collision inevitable. Foreign support would mean a most definitive split in the Union. Thus, it was decided that Major Anderson and his Union forces, located at Fort Moultrie, should take possession of the not-yet-completed Fort Sumter.

As it neared completion in December of 1860, Fort Sumter must have appeared a most formidable fortress, with 50' masonry walls and mounts for over 130 guns. Most of the guns were still sitting in the parade ground waiting to be put in place upon the arrival of the Union forces. While Major Anderson steadfastly readied Fort Sumter against confederate attack, the newly formed Confederate States of America (CSA) bolstered the other forts around the harbor, and erected batteries in preparation for the taking of Fort Sumter.

Meanwhile, while President Buchanan vacillated on the issue of confederate succession, President-elect Lincoln prepared to take office. It was the election of Lincoln that had spurred South Carolina and other slave states to secede. Upon taking office on March 4, 1861, President Lincoln made every effort to save the "border-states" and isolate the already seceded "gulf-states."[2] In

the meantime, the Confederacy was forging a new government, with Montgomery, Alabama, as its capital and former U.S. Senator Jefferson Davis as its President. They adopted a constitution that would allow for each state to remain sovereign and yet united in purpose. From the onset, that purpose seemed to be to defend itself against the United States.

While President Lincoln's administration debated their next move, at Fort Sumter Major Anderson could only sit and wait. His supplies had been cut off, and at best he could hold out until April 15th. He was most anxious about his fate. Right up to the first shot, early in the morning of the 12th of April, Major Anderson had been left in the dark as to the government's intentions. He was forced into action, however, by a Confederate attack. As the sun rose, Fort Sumter returned the fire and so began the Civil War.

At the end of the 34-hour battle, the Confederacy captured Fort Sumter, setting afire the interior of the fort with hot cannon shot, completely burning out the enlisted men's barracks and the officers' quarters. Major Anderson had so little ammunition at his disposal, and his food rations were so minimal that he had no other recourse than to evacuate the fort on April 14, 1861. He did so with a 100-gun salute to the American flag, granted him by General Beauregard of the Confederate Army (cut short to a 50-gun salute by the backfire of one of the guns, killing one man and mortally wounding another--the only casualties of the battle). From the shore of Morris Island, Confederate soldiers cheered what they had thought a gallant stand by Major Anderson and his company as they sailed out of the harbor aboard the "Isabel."

The next four years, 1861-65, would be the bloodiest in America's history--leaving over 630,000 men dead and a whole section of the country "scorched" as cities were burned and plantations destroyed. As the war came to a close, Fort Sumter was a shapeless mass of ruins, mostly berm, rubble and sand, with a garrison of 320 Confederate soldiers holding its ground. Finally, on February 18, 1865, the fort was evacuated. At a celebration of the formal end of the war held on April 14, exactly four years after Union forces evacuated the fort, the American flag was ceremoniously raised in the parade ground, with Brigadier General Anderson in attendance.

Fort Sumter remains today one of the strongest symbols of the Civil War, although merely a shadow of its former self with just 21 of its original 82 casemates surviving. Only foundations and a few low walls remain of the enlisted men's barracks and the officers' quarters. In addition, it has been greatly modified over the years. The parade ground is dominated by Battery Huger, a concrete bulwark built during the time of the Spanish-American War in 1898-99. Its casemates continue to crumble as the foundations settle into the sand shoal.

THE CONSTRUCTION OF THE FORT
DECEMBER 28, 1828 -- DECEMBER 26, 1860

Fort Sumter was to be an integral part of an elaborate coastal defense system devised by Brigadier General Simon Bernard and Major Joseph Totten of the Board of Engineers (later to become the Corps of Engineers). The land was ceded to the Federal Government by South Carolina in 1805 for that expressed purpose, along with Forts Moultrie, Johnson and Castle Pickney. The Survey of Coastal Defenses in 1826 labeled Charleston a first order city[3] and called for the construction of "a pentagonal, three-tiered, masonry fort with truncated angles to be built on the shallow shoal extending from James Island" (Pemberton, 1959, p. 4). The plans were drawn up in 1827 and adopted on December 5, 1828 (National Archives, drawer 66, sheet 1). Lieutenant Henry Brewerton was appointed supervisory engineer of the construction of the fort, locating his headquarters in Fort Johnson. During this time, work was also executed on the other military structures fortifying Charleston Harbor.

Lieutenant Brewerton assumed his duties early in 1829. One of his first actions was to advertise for "30,000 tons of stone, in irregular masses, weighing from 50 to 500 pounds and upwards each" for the construction of a rock mole--a donut-shaped mass of stone with an opening to allow light ships to pass into the interior to supply materials (Pemberton, 1959, p. 4). This would form the foundation of the fort, and would rest atop the shoal. Lieutenant Brewerton advertised in 24 New York and New England papers, eventually signing a contract with a New York supplier at $2.45 per ton of stone, much of which were to be ballast stones. Shipment was slow, however, and the contract was rescinded in 1830 when only 1000 tons had been delivered. Thus, the project experienced the first of many delays. By 1833, work again progressed, and the rock mole began to take shape (drawer 66, sheet 2). Chief engineer Charles Gratiot, in an 1834 report, stated that over 50,000 tons of rough granite, stretchers and cut stone (for cisterns) had been delivered. (By 1851, 109,000 tons of stone had been used in the foundation, esplanade and wharf.)

Work was suspended in 1834 when William Laval, a comptroller within Governor Hayne's administration, produced a claim for 870 acres of harbor land including the shoal on which Fort Sumter's foundation sat. The situation was further complicated by talk of "nullification"--the refusal to recognize federal law. Thus, Unionists and Nullifiers argued over the authority of the Federal Government from 1830-35, especially with regard to the federal Land Frontier and Seacoast Program of which all the harbor fortifications were part. Charleston ship owners complained that access to the harbor was being impinged by the construction of Fort Sumter. In an

editorial published in the January 10, 1838 edition of the "Charleston Mercury," a statement was made that the Laval claim was a means of holding up construction while the state argued over the legitimacy of the authority of the program. Laval's claim was rendered invalid in 1837, but construction did not resume until 1841, when the state finally "outright ceded" 125 acres of harbor land to the Federal Government in December of 1840.[4]

Operations resumed in January of 1841, under the direction of Captain A.H. Bowman. The mole was only 2' above low-water mark, and thus was flooded a great portion of the day. Therefore, as his first order of business, Captain Bowman instituted a plan for the construction of a wharf and the raising of the gorge wall foundation to a height to prevent flooding of the entire site by tidal forces. The wharf was completed in September 1842, rising 5' above ordinary high water and extended out 140' from the esplanade of the gorge wall foundation (drawer 66, sheet 9).

Next, the "pier system" was revised, calling for three courses of granite stone atop a layer of granite stretchers, creating inverted coffers in which a composite of concrete and oyster shell aggregate would be rammed.[5] The rock mole was leveled to low-water height, and the foundation placed atop it, rising 6' to high-water height. Along the flank and face wall foundations these reference marks would be 1' higher. Masonry walls would then rise "slopingly" to a reference height of 9' above the low-water mark. The supporting piers, or buttresses, were not physically connected to the scarp (or outer) wall. The inner piers rested directly against the interior of the scarp wall and the outer piers were at a distance 15' from the scarp wall, with arches springing from the piers and creating the effect of flying buttresses. The walls rose perpendicularly with a very slight pitch of 96/1 after the 9' reference mark. The basic stone foundations were completed between the years 1842-45.

Next, the filling of the interior parade ground began, using sand and shell. The work proceeded from the gorge wall toward the salient angle. A new passageway into the interior was opened at a point just above the left shoulder angle and the old passageway just above the left gorge angle was filled. By September 30, 1845, half of the parade ground was filled (drawer 66, sheet 17).

Unusually high tides in October 1845 led to the revision of the reference floor heights. The new heights were approximately 1-1/2' above the old marks which eventually led to the reducing of the heights of the lower casemate ceilings by 1'. In addition, subsidence tests were carried out in 1845-46 to measure the settlement of the foundations. The greatest settlement was 2'-1/2" at any point, but in most cases there was virtually no settlement. This seemed to temporarily appease General Totten's anxieties concerning the matter. In Pemberton's 1959 report, however, it is

pointed out that a great amount of subsidence has taken place over the years, as much as 4.43' at the right gorge angle.[6]

By September 30, 1846, the scarp wall had reached a reference height of 18.32'. The masonry walls--using the "best Carolina grey" variety stone--reached the upper edges of the first-tier embrasure openings (Barnes, 1949, p. 1). The first-floor ground plan was established and construction of the five brick cisterns at the center point of each of the walls was begun (drawer 66, sheet 36). During the years 1847-48, the scarp wall reached a reference height of 30.4' and the piers, or buttresses, 22.4'. Recessed arches over the embrasures were set. The inner piers then rose to a height of 31.4' to the spring line of the second-tier recessed arches (drawer 66, sheet 39).

The casemates acted as a modified system of buttresses and flying buttresses, as well as gun rooms (drawer 66, sheet 30). Arches connected the inner and outer piers, and vaults enclosed the spaces between the piers. The vaults over the second-tier casemates were regular in that they were semi-circular, but the vaults over the first-tier casemates were modified "platform arches", supporting the floors of the second-tier gun rooms. Recessed arches spanned the embrasure openings. A 6'-0" x 8'-0" section was left open in the masonry wall under the recessed arch and the embrasure set in the opening. In the second-tier casemates, the openings were approximately 8' x 8' with the arch now acting as the upper edge of the opening. The first-tier embrasures were set in place by 1851. Four molded concrete blocks were fit together to reduce the exterior of the opening to a narrow oval aperture while brownstone blocks, 15" thick, were fit together in a similar manner on the interior. There was a wrought-iron seal between the blocks and the rough rectangular openings. Wooden shutters were installed in all 41 embrasures.

Next, a "pintle-tongue arrangement" was used to anchor the guns to the lower unit of the carriage in the embrasures. The pintle was a cast-iron rod that thread through an iron-plated opening in the sill of the concrete portion of the embrasure. The pintle then went down through a granite lintel over the "tongue-hole" (the narrow slot directly under the embrasure), thread into the tongue of the gun carriage (a metal strap that extended into the radiating slot) and finally was anchored into an embedded granite slab in the wall. This enabled the gun and carriage to withstand violent jars of recoil (drawer 66, sheet 78). Adjacent to the "tongue holes" were two smaller arched recesses that accepted the wheels of the gun carriages at its extreme traverses.

Water was supplied by inverted-vault cisterns, capable of holding 10,000 gallons of water each, which were made water-tight by 1855.[7] An elaborate drainage system of valley gutters between the vaulted ceilings of the second-tier casemates drained water from the

terreplein into connecting terra-cotta pipes which in turn fed an underground main pipe which carried the rain water into the cisterns.

The period of construction between 1856 and 1858 was very active. The valleys between the second-tier vaults were filled with sand and shell fill, creating a platform or terreplein on which the guns would be mounted "en barbette"--high enough to allow for the firing of guns over a parapet--atop cylindrical "banquettes"--a platform for the soldiers to stand on while firing--of brick coping (drawer 66, sheet 73). The parapet was raised to its full height and niches set into the masonry wall to receive the guns. The parapet was capped with brick masonry blocks supported by corbels that projected 1'-3" from the scarp wall (drawer 66, sheet 77). The mounting of the guns en barbette along the terreplein was done in a "center-pintle arrangement." The banquette served as the foundation atop which a concrete platform, smaller in diameter, was laid with a center-mounted pintle. The gun carriage could then swing on the pintle. The arrangement along the terreplein of the gorge wall was modified and smaller guns were mounted (drawer 66, sheets 51, 57).

Also during this period, bluestone flagging was laid on the floors of the first-tier casemates, with appropriate base settings. The iron traverse rails for the swing-mounted, pintle-tongue arrangement carriages of the guns were laid on granite stones fitted into the paving. At least two carriages were put into place to test the positioning of the guns. The second-tier casemate floors were to be paved in granite, but at the time of Major Anderson's occupation this had not been done, with the exception of one casemate on the right flank wall for testing purposes. Because of the demands put on Major Anderson, it is doubtful that the second-tier flagging was ever laid.

A "passageway" on the first tier of the face walls supported a "gallery" above on the second tier. The "passageway" seemed a way to further buttress the scarp wall, by using additional piers spaced 3' from the outer piers and connected to each other with half-arches. The "gallery" was to have a coping of granite stone but apparently this was never executed, having been given low priority during Major Anderson's occupation.

Circular stair-towers served each angle of the fort. The two at the gorge angles were incorporated into the officers' quarters and barracks, but those at the shoulder angles and salient angle were incorporated into the casemates, with octagonal cupolas atop their towers. Granite steps were laid, radiating from a central point, with the outer width of each step being 16" (there is evidence of this at the salient and left gorge angle ruins). Above the salient angle stair-tower was supposedly "some sort of housing for a lighthouse lantern" (Harper's Weekly, [16 Feb 1861]:160). However, there seemed to be doubts as to whether this appendage was ever

added, because photographs bear evidence of only a lighthouse lantern mounted on trestles in the parade ground (Barnes, 1949, p. 23).

The officers' quarters and the enlisted men's barracks were begun in 1851. The barracks would be able to house four companies, and the officer's quarters would house all appropriate officers and their families. (Verandas facing into the parade ground and picket-fence "gardens" on the esplanade outside the gorge wall were planned but never executed.) The workmen, under the direction of Captain J.G. Foster, were living in the right-flank barracks. These men were all contracted locally which became a point of contention during Major Anderson's occupation, for several wore the blue cockade of South Carolina, creating some anxiety among the soldiers and workers who had not stated a cause. As a result, the partisan workers had to be released.

Regardless of labor problems, by 1852 the concrete foundation walls for the right-flank barracks--6' deep and resting atop a grillage of wooden timbers--were complete and work on the masonry walls had begun. By the autumn of that same year the masonry walls had reached a reference height of 50.4'. Work on the left-flank barracks began in 1854 and was brought to a similar level of completion as those of the right flank by October 1855. The framing for the roofs had been completed on both barracks and slate roofs installed. Large water storage tanks were hung in the attics of the barracks over the stairwells, fed by drains connected to the copper gutters along the eaves. There were also over-flow pipes that fed the cisterns. On the second- and third-floor stairwell landings were zinc- or lead-lined sinks with wooden water casks. It seems that the stairs--made of cast-iron--were only installed in the right flank barracks. The left-flank barracks were never fully completed, causing Major Anderson to house his entire garrison in the officers' quarters, while the workmen were still occupying the right-flank barracks.

The barracks were to be well appointed with interior wooden panelling, except in the kitchen which was whitewashed. The aforementioned iron stairways and wooden floors, atop vaulted brick and concrete sub-flooring, were supported by wrought-iron beams. Wooden partitions/shutters, that could be removed during times of attack, separated the barracks from the casemates.

The barracks, however, were structurally separate from the casemates. Captain G.W. Cullum, who was in charge of operations at Fort Sumter during this time, achieved this by setting intermediate girders onto arches over the fireplaces, running beams longitudinally through the barracks, and using turnbuckles for lateral support. Five longitudinal brick and concrete vaults sprung from these beams, atop which the flooring was laid for the second level (drawer 66, sheet 75). Apparently the floor of the third level was laid directly

atop the longitudinal beams without the use of the shallow vaults. This obviated an 1856 plan calling for the intermediate girders to rest on cast-iron stirrups mounted directly into the vaults of the first- and second-tier casemates (drawer 66, sheet 74). Archeological evidence revealed that the flooring on the first level of the left flank barracks was brick (laid in a herringbone pattern in the hearths of the kitchen fireplaces to either end). The foundation remnants of the right-flank barracks have yet to be revealed.

Ventilation was achieved both by the stairwells and vent pipes in the chimney stacks. The air was carried out through grills puncturing the ceilings of the third-level, quadrant windows in the gable ends, and through the chimneys themselves.

The windows, occurring at regular intervals facing onto the parade ground, were 18-light casements, fit into 4′ x 8′ wooden frames. The doors entered into the stairwells on the first level and through the kitchens to either end, with transoms above those facing onto the parade ground. There were also irregularly spaced, 15-light-casement windows and doors which opened onto the terreplein.

Construction of the officers' quarters, arranged along the gorge wall, began in 1851. It took three years to lay the concrete foundation walls atop a grillage of wooden timbers. From 1854-57 work proceeded more quickly with the raising of the masonry walls, which again were made separate from the casemate construction of the inner rooms. By 1858, the quarters were relatively complete.

The interior rooms of the officers' quarters were constructed in the same manner as the casemates, except that loop-holes were built into the scarp wall rather than openings for embrasures. These interior rooms were used primarily as kitchens on the first level, with the exception of the sally-port and the adjacent guard room and prisons (drawer 66, sheet 53). Two-story vaults were divided by timber flooring, rather than the platform arches which appear in the casemates (drawer 66, sheet 61). The plans gave no designation as to the use of the rooms on the second level, but they presumably served as part of the living area for the three-story units for the married officers and their families. The outer rooms of the officers' quarters--three stories in height and reaching a similar reference mark of 50.4′--were constructed in the same manner as the barracks. The topmost rooms apparently functioned as bedrooms (drawer 66, sheets 53,61).

The finishes were to be plain and simple, with cornice moldings only in the parlors. The fireplaces had "ordinary" marble mantels and cast-iron grates for ventilation. The kitchen fireplaces had metal grates that hung down over the fire for cooking. The mantels over the kitchen fireplaces were cast-iron, and ordinary brick grates

served the purposes of ventilation. Herringbone patterns can again be found in the hearths of the few uncovered kitchen fireplaces, and a 1963 photograph revealed cast-iron supporting pieces of a mantle in one of the fireplaces. Franklin stoves appear on the plans, in two of the third-level bedrooms (drawer 66, sheet 53).

The plumbing system was far more elaborate in the officers' quarters, calling for water closets and sinks in the bathrooms of the living units. The cistern was located under the sally-port with a similar valley gutter and terra-cotta pipe arrangement feeding into it as seen in the other walls. The water closets drained out into the harbor below the esplanade. Again, there were iron storage tanks located in the attics.

Magazines flanked the officers' quarters on both the first- and second-tier level. Located in the casemated sections, the masonry walls were 6' thick and vented by portholes with 90-degree bends in the shafts. Those along the gorge wall resembled the loop holes of the officers' quarters. Wooden floors, walls, and ceilings had a 12" space between them and the masonry walls for added ventilation and moisture control. The doors were lined with copper to reduce sparks. The triangular anterooms that led into the magazines had iron doors resting in iron frames.

The wharf extended out 171' from the gorge wall into the harbor. It was laid in stone atop a grillage of heavy timbers. By 1854, however, it had fallen into disrepair and plans were made to repair it. Tidal action had left only 100' usable. A jetty extending out from the right gorge angle was planned but never executed. The material for boat hoists had arrived but lay on the wharf at the time of Major Anderson's arrival. A portcullis was to serve the sally-port but was never put into place (drawer 66, sheet 38). Instead, Major Anderson had heavy wooden gates set into the stone framing.

Due to time constraints, Major Anderson suspended all construction that did not directly relate to the defense of the fort. Therefore, much of the interior finish work in the left-flank barracks was left undone, and the embrasures for the second tier were never fit into place. The yawning openings were sealed with brick, and in some cases only one-inch board.

THE ECHO EPISODE
THE INTERNMENT OF 300 AFRICANS AT FORT SUMTER

Probably the most unusual occupation of Fort Sumter occurred in September of 1858--prior to the actual completion of the fort--when for approximately three weeks 300 Africans were held awaiting deportation to Liberia, an American colony on the northwest coast of Africa. The Africans had been acquired at Cabinda, near the mouth of

the Congo River, for the purpose of being put into slavery by two Spaniards who served as agents for Edward N. Townsend, Captain of the "Echo," and his silent partners. The overseas slave trade had been abolished in 1808 but had since become a lucrative "act of piracy" (although this became a strong point of contention in the subsequent trial of Captain Townsend and his crew). There were initially 455 Africans on board, stowed away in the hull of the ship in a "spoon fashion", manacled together in sitting positions. Of those, 141 died on the trans-Atlantic passage, known as "the Middle Passage," and 14 more died on their subsequent move to Charleston after the ship had been captured off the coast of Cuba, which served as a destination point for some American slavers.

The overseas slave trade had become a point of contention in the South Carolina legislature throughout the 1850s. There were strong advocates for repealing the law banning such a slave trade, even if it meant seceding from the Union to do so. Among them was Leonidas Spratt, a Charleston lawyer, who advocated that the return of the overseas slave trade would make the ownership of slaves more affordable to a greater cross-section of Southern people and act as a stabilizing influence in what had become a restless part of the country (Roberson, 1989, pp. 4-5). In 1856, Governor James H. Adams supported such a resolution but it met with stiff opposition in the state legislature. The most ardent speaker was J. Johnston Pettigrew who felt the importation of such slaves would become an unsettling influence on the already "obedient, educated, efficient, religious and virtuous" slaves in the country. He further stressed that such an issue would only create division and dissension in the South, and was an act of "pure combativeness" against the North. The resolution was defeated--as was Mr. Adams in a U.S. Senate election in 1858 (Roberson, 1989, pp. 5-6).

The arrival of 300 Africans, dressed in little more than loincloths and looking like "walking skeletons" as a result of their poor treatment on the voyage, caused quite a sensation in Charleston. They were paraded through the streets in manacles, and temporarily held at the city jail while rumors flourished of an attempt to capture them. They were eventually interned at Fort Sumter. Treated as an oddity, people of the city paid to take boat trips out to the fort where the Africans would be paraded on the esplanade for all to see. Despite the clothes and blankets donated to them by Charlestonians--including many of the city's slaves--the Africans preferred to remain in their traditional garb. They tended to congregate in particular groups and spoke in different languages, indicating that they were of several tribes. While at Fort Sumter they were quite docile, and disease continued to take its toll, with dysentery being particularly widespread (Roberson, 1989, p. 17-18). They remain at Fort Sumter until the frigate "Niagara" came to carry the then 271 survivors of "the Middle Passage" to resettlement in Monrovia, Liberia, on September 21.

The captain and crew of the "Echo" were eventually acquitted. Leonidas Spratt was the defense attorney who again argued for the repeal of the law prohibiting overseas slave trade, openly declaring that "revolution must be the inevitable result" if laws favoring the northern section were not declared void in the court. The law stood, although the prosecutor's argument that the act was akin to that of piracy and murder likewise failed to sway the court. The captain and crew were actually acquitted on a technicality--there was no proof that the "Echo" was an American vessel (Roberson, 1989, pp. 20-24).

THE FIRST OCCUPATION OF FORT SUMTER
DECEMBER 26, 1860 -- APRIL 14, 1861

With the outbreak of small pox in Columbia, South Carolina, the Secession Convention moved to Charleston, and on December 20, 1860, a formal declaration was signed establishing in the minds of South Carolinians that they were a sovereign nation. Although the Buchanan administration did not recognize them as such, it in part sympathized with the former state and seemed to adopt a course of action that would cause the least friction, in an attempt to avoid collision. Major Robert Anderson had been occupying Fort Moultrie on Sullivan's Island up to Christmas Day of 1860. The events in the South Carolina legislature and its effect on Charleston, however, dictated that Major Anderson establish a more defensible position. The present Fort Moultrie was built shortly after the Revolutionary War with low walls and gently sloping berms. Captain Abner Doubleday humorously remarked that with the sand drifts cleared away from the seaward wall, at least stray cattle would be kept from blundering into the place (Catton, 1961, p. 144). Sand dunes and roof tops of houses were higher than the walls of the fort, and Anderson therefore felt uneasy with his position. It was the feeling in Charleston, however, that any action on Major Anderson's part to bolster his position would be an act of aggression and result in collision between the State and the Union. At that time only the Washington Light Infantry--consisting of approximately 200 foot soldiers--under the command of Lieutenant Simonton, was at the disposal of Governor Pickens.

Work was continuing at Fort Sumter, as well as at Forts Moultrie, Johnson and Castle Pickney. Major Anderson's command consisted of 7 officers, 17 non-commissioned officers, and 75 enlisted men, 8 of whom were musicians (Crawford, 1896, p. 64). There was also a small company of men at the arsenal in Charleston. Anderson asked the federal government for reinforcements, as he felt it was impossible to defend all four structures if attacked. No reinforcements were sent, however, for fear that the South Carolinians this would treat it as an act of aggression. Henry Trescot, a South Carolinian and Assistant Secretary of State in President Buchanan's administration, recommended the garrison be

pulled out all together, and an orderly-sergeant and one or two other men be posted at each of the forts (Crawford, 1896, p. 42-43). President Buchanan, however, would neither remove nor reinforce the garrison at Fort Moultrie.

Steamers were constantly on patrol in the harbor and on occasion seemed to taunt Major Anderson's garrison at Fort Moultrie. Acting on a tacit agreement between him and Major D. C. Buell, Assistant Adjutant General to Secretary of War John Floyd, Major Anderson moved his garrison to Fort Sumter under the cover of darkness on December 26, 1860. The justification was that any act of hostility that threatened Major Anderson's command of the situation would be sufficient reason to move his garrison to either of the forts in or around the harbor (Crawford, 1896, p. 73). This action was met by anger on the part of Charlestonians, and consternation on the part of President Buchanan. In response, Governor Pickens ordered the taking of all other forts and the arsenal in Charleston, aggravating the matter all the more. He also ordered the construction of batteries on Morris and Sullivan's Island. Two detachments were sent, led by Major Stevens, Commandant of the Citadel Academy, and Captain Tucker of the Vigilant Rifles, with the expressed purpose of repelling any ships that attempted to supply Fort Sumter (Crawford, 1896, p. 123). To further guard against ships entering the harbor unsolicited, Governor Francis Pickens ordered vessels to be sunk, closing off the passage via Sullivan's Island. Despite rumors that ships would soon be re-supplying Fort Sumter, none arrived.

Major Anderson's move had been hasty, and as a result he was without certain incidentals. His fuel supply was short and he felt a certain anxiety in keeping on all of the 150 workmen at Fort Sumter, many of whose cause was unknown. It became readily apparent, however, when many chose to wear the "blue cockade" of South Carolina, at which point Major Anderson dismissed them. As a result, by December 29th, the number of laborers had been reduced to 55. An additional concern were the 45 women and children at the fort.

Major Anderson's immediate task was to close up the yawning openings in the second-tier casemates where the embrasures had not been set. This he did, more often than not, using several courses of dry-laid brick. Only three guns were in position and one of them experimental. At least 62 guns sat in the parade ground (reports vary), and Major Anderson commanded Captain Foster to carry out the task of setting them in place on the first tier and the barbette level.

While taking every step to defend the harbor, Governor Pickens was also sending envoys to Washington calling for title to all Federal properties within the limits of the State. Also in one of the letters, dated December 29, 1860, Governor Pickens stressed that a "continuation of peace and amity" between the State and the Union

would exist provided Fort Sumter was evacuated.

President Buchanan's administration was split on the issue. Secretary of War Floyd was insistent on the removal of the garrison all together. Ironically, it was his department that authorized the move, but Mr. Floyd denied ever issuing such an order. Judge Black, Mr. Holt and Mr. Stanton defended Major Anderson's action and called for the strengthening of his position. After much discussion, a letter was sent, signed by the President, stating that it was within Major Anderson's power to establish his command at Fort Sumter and that unless Congress recognized the State of South Carolina as a sovereign nation, all Federal properties should be returned forthwith (Crawford, 1896, pp. 153-55).

Thus, Major Anderson finally had official support for his action, and work continued on strengthening the fort. "Machicouli" galleries--wooden structures best described as stands cantilevered over the parapets at intervals--were projected over all the walls. These galleries included drop-hatches for the dispensing of "thunder-barrels" containing fragments of rock and loaded shells should the enemy reach the enrockment of the fort (Crawford, 1896, p. 134; Barnes [FoSu: April 12, 1861], 1949, p. 3). The sally-port was encased in brick and stone. All the loop-hole windows and ventilators along the gorge wall were sealed with 2' of brick and stone and melded together with iron. "Splinter-proof shelters" of wood encased in iron were erected as lean-to's along the barbette tier to protect gunners during assault. One embrasure was enlarged on the first tier of the left flank wall to receive supplies should ships ever arrive (Barnes [FoSu: April 12, 1861], 1949, pp. 4-7).

Because the fort was not yet complete, the entire garrison, including the families of officers, were housed in the officers' quarters. Alterations were made to include a hospital, and openings were added in several of the partition walls to permit easy access throughout the quarters. The workmen stayed on in the right flank barracks. Rationing of fuel had already begun. By the end of the occupation the garrison was using the wooden temporary structures in the parade ground for firewood.

Meanwhile, work continued steadfastly on the construction of batteries on Morris and Sullivan's Islands and at the forts surrounding the harbor. From the terreplein, Major Anderson noted the progress in reports to Lt. General Winfield Scott, and Captain Foster provided sketches of the fortified structures.

On January 9, 1861, the "Star of the West" attempted to re-supply Fort Sumter. It sailed in parallel to Morris Island, using the lighthouse as a point of reference, but came under fire at Cummings Point. The "Brooklyn," a warship, was supposed to escort the "Star of the West" into the harbor but had failed to reach

Charleston in time. Major Anderson did not return the fire, fearing the beginning of a civil war. He responded angrily in a letter to Governor Pickens, demanding to know if he condoned such an act, given that the "Star of the West" was a steamer and not a warship. Governor Pickens responded by saying that the "Star" was laden with soldiers as well as supplies and that the State was within its right to repel it. Major Anderson deferred the matter to Washington (Crawford, 1896, pp. 182-90). Subsequent re-supply attempts were considered but never executed by President Buchanan's administration. At one point Major Anderson asked for 20,000 Federal troops to take back the harbor, which was seen as extravagant and was rebuffed by President Buchanan. Such an act would have been seen as declaring war on South Carolina and other slave-states now actively pursuing a confederation (Crawford, 1896, p. 282).

On January 19, Major Anderson requested that the Governor send a steamer to the fort to carry all woman and children safely back North. Governor Pickens granted the request and on February 1st the families of the officers were evacuated (Crawford, 1896, pp. 206-07). Anderson was evidently expecting an outbreak.

Back in Washington it had been discovered that John B. Floyd, former Governor of Virginia, had used his post in President Buchanan's administration to oversupply arsenals in southern states, and had been involved in a scandal concerning the misappropriation of $870,000 of the Indian Trust Fund. Evidence was brought forward of an order to transfer 120 guns from a Pittsburgh arsenal to unmanned forts on Ship Island, Mississippi, and at Galveston, Texas. In response to Mr. Floyd's continuing plea to evacuate Fort Sumter, Attorney General Stanton remarked, "no administration, much less this one, can afford to lose a million in money and a fort in the same week" (Catton, 1961, p. 172). After resigning his post, Mr. Floyd returned to his home state of Virginia and was later made Brigadier General in the Confederate Army. Mr. Holt, upon assuming the position of Secretary of War, canceled the transfer of the guns (Catton, 1961, pp. 172-76; Crawford, 1896, pp. 213-17).

On March 4, 1861, Abraham Lincoln formally took office. President Lincoln was appalled by the relative inaction of the former president's administration with regard to this situation. It was the feeling that if appropriate actions had been taken earlier, many of the forts that were now in Confederate hands throughout the "gulf states" could have been held.[8] History "will judge him (Buchanan) not from what he did, but what, from his great opportunities and grave responsibilities, he utterly failed to do" (Crawford, 1896, p. 287). In his inaugural address, Lincoln laid down the basic principles on which any action regarding southern succession would be based, including: no state of its own volition may leave the Union, the ordinances of secession were illegal, and acts of violence to support secession were insurrectionary. In addition, Lincoln stated

that he intended to maintain possession of federal property in seceded states, which included Fort Sumter (Knopf, pgs. 382-383).

Meanwhile, on February 8, the Confederate government appointed Captain P.G.T. Beauregard a Brigadier General in the Confederate Army, and put him in command of all operations at Charleston. General Beauregard had been passed over as the commander of the state militia in his home state of Louisiana, and therefore regained a large portion of his honor back in being elevated to such a high post. He seemed an obvious choice. For 12 years he had been in charge of "the Mississippi and Lake defenses of Louisiana" and had devised several engineering improvements in response to the everchanging nature of the Mississippi River. He had also been supervising the construction of the immense customs house in New Orleans (Williams, 1955, pp. 34-50).

There was some vacillation on the part of South Carolina forces, but by the time of President Lincoln's inauguration, General Beauregard was firmly in command. In an appraisal of the military structures surrounding the harbor and the forces employed, General Beauregard reported back to Montgomery that they were woefully inadequate and in many cases unusable for the purposes of war (Crawford, 1896, p. 278). Thus, many batteries were dismantled and built anew. A battery was built at Mt. Pleasant to close in the ring around Fort Sumter. At Cummings Point, the guns were considered too close together and were more properly spaced apart (Crawford, 1896, pp. 278-80).

Again, Major Anderson and Captain Foster monitored these actions and reported on them to Washington, although their mail was now, in part, being retained by the State. In one letter dated March 6, Captain Foster noted floating batteries being constructed, built out of timbers and clad in iron. Major Anderson feared that he had been closed off and wrote this to Colonel Cooper, Adjutant General to the Secretary of War, in a March 9th letter. He said the lane along Morris Island is now well fortified and that Fort Moultrie had become "a very formidable enemy" (Crawford, 1896, pp. 280-81).

President Lincoln's attitudes were seen by some as passive, more concerned with retaining the "border states"--in particular Virginia--than in discussing any attempt to fortify Major Anderson's position (the administration based its position in regard to Fort Sumter on a letter from Major Anderson predating his request for 20,000 troops in which he stated he was secure). President Lincoln was actively courting the Peace Convention headed up by former President John Tyler.[9] This discouraged Major Anderson who received indirect reports regarding his situation and felt he was alone and "in the hands of God". By mid-March, the garrison had exhausted all the fuel supply, clearing the parade ground of all the temporary wooden structures (Crawford, 1896, pp. 295-95).

In addition to sealing off all portals where cannons had not been placed, Major Anderson mined the esplanade and wharf. Daily range firing was being carried out by both sides. South Carolina ships were moved into position to further close off shipping lanes. A floating battery was moved into a position so that it could no longer be detected by Major Anderson and Captain Foster. All work that could be done on the fort was done, and Captain Foster released the remaining workmen. In all, 62 guns were aimed at points around the harbor (Crawford, 1896, pp. 296-304; map showing positions of guns, p. 303).

All the while, the Confederate States of America were pushing for recognition of their sovereign entity. England, France, Spain and Russia were all considering the recognition of the new Confederacy. The Lincoln administration was foregoing any attempts to entertain the Confederate States of America as a nation, and thus the envoy from Montgomery was never able to hold direct talks with the administration. Instead, they received their information through ancillary officials of the administration. Congress was likewise stalling on the issue. The strongest words to come out of the Lincoln administration were by Secretary of State William Seward who said in a letter dated March 15th, but received by the Confederate envoy on April 8th, the Confederacy is "a perversion of a temporary and partisan excitement to the purpose of an unjustifiable and unconstitutional aggression upon the rights and authority of the Government" (Crawford, 1896, p. 342). Supreme Court Justice John Campbell, a native of Alabama, advised Mr. Seward to tone down the letter. However, this letter and rumors of further attempts to re-supply the fort set the stage for the Confederate siege on Fort Sumter.

Finally, after months of stalling in the hopes of avoiding conflict, Lincoln decided to dispatch a naval relief expedition to Fort Sumter. If he permitted the loss of Sumter, the south--and perhaps even the north--would never believe that he meant to sustain the Union (Knopf pg. 383). Thus, on April 8th a messenger arrived in Charleston with the notice from President Lincoln that Fort Sumter would be re-supplied, by force if necessary (Crawford, 1896, pp. 344-45). Major Anderson badly needed supplies and the President saw an opportunity to rest the burden of the war on the new Confederacy. Captain Gustavus Fox, who planned the expedition, remarked afterward that it seemed very important to the President that South Carolina "should stand before the civilized world as having fired upon bread" (Catton, p. 297).

From that point onward, the Confederate forces--commanded by General Beauregard--readied for the assault. There were over 8000 men within the heavily fortified batteries and forts surrounding the island fort. At last count, there were 75 men garrisoned in Fort Sumter (10 officers and 65 enlisted men). Bread and rice were being

rationed. However, in spite of the overwhelming odds against them, Samuel Crawford (the assistant surgeon stationed at the fort during the occupation) stated in his subsequent book that the troops were in "good spirits" and only Major Anderson seemed to be "depressed" by the situation (Crawford, 1896, pp. 398-400).

The re-supply effort was underway, but orders were confused with a similar effort to give assistance to Fort Pickens in Pensacola, Florida. It was the contention of the Department of War that neither fort could be defended and that both should be evacuated (the opinions of Generals Totten and Scott).[10] However, President Lincoln had undertaken contradictory plans to supply both forts that left many persons so thoroughly in the dark that the ships received confusing orders. On April 12th only three of the ships scheduled to meet at a rendezvous point at the outer shoals of Charleston Harbor had arrived and were awaiting the arrival of the re-commissioned warship "Powhatan," which was on its way to Fort Pickens. Two tug boats failed to arrive--one having run aground at Wilmington, North Carolina, and the other having lost its bearings, ending up in Savannah, Georgia.

The southerners, who felt that they could not bow to federal authority if they were to be taken seriously, decided that the relief ships could not be permitted to land. They must therefore reduce the fort before the ships arrrived, even if it meant envoking war. Thus, while the Union naval forces floundered outside the harbor, General Beauregard was ordered to demand the surrender of Fort Sumter, and if refused, to attack. When Anderson rejected it, the confederates bombarded the fort. The first shot was fired from a mortar at Fort Johnson and exploded directly over the top of Fort Sumter at 4:30 a.m., April 12, signalling the beginning of the siege. Major Anderson had given orders to hold fire until sunrise. Shots from Fort Moultrie riddled the left face walls and opposite officers' quarters. An "enfilading battery" on Sullivan's Island swept the parapets with over 600 shots. Major Anderson returned fire with 48 guns, some bearing on the City of Charleston itself. All the forts and batteries surrounding the harbor were honed in on the besieged fort. The "Baltic" made an attempt to come to the aid of Major Anderson but ran aground on a shoal.

By the following day the fort was heavily damaged on the interior. The extent of the officers' quarters and barracks had been burned out by hot shot, fire and smoke threatened the magazines and the terreplein was inaccessible. On April 14th, Major Anderson had no other option but to concede his defeat to General Beauregard. Thus, the Confederate forces took control of the fort at 4 p.m. The Union garrison sailed out of the harbor aboard the "Isabel" and were transferred to the "Baltic" for their return voyage North. Confederate soldiers cheered Major Anderson's gallant stand from the shores of Morris Island, but had jeered the ships that remained out

beyond the shoals. Major Beauregard granted Major Anderson his request for a 100-gun salute of the American flag, cut short to a 50-gun salute by the backfire of a gun that killed one soldier and mortally wounded another.

THE SIEGE OF FORT SUMTER
APRIL 7, 1863 -- SEPTEMBER 18, 1864

During the course of the Civil war, three major and eight minor bombardments were waged against the fort (Burton, 1970, p. 300). General Quincy A. Gillmore--fresh from his victory over the Confederate forces at Fort Pulaski, protecting Savannah, Georgia--was put in charge of operations in the union attempts to gain control in Charleston Harbor. An iron-clad fleet of ships, under the command of Admiral Du Pont, and later Admiral Dahlgren, was set into action against the defenses protecting Charleston Harbor, chiefly Fort Sumter.

From April 14, 1861, to April 7, 1863, prior to the siege, General Beauregard made many repairs and alterations to Fort Sumter. The barracks were rebuilt and iron stairs fitted in the stairwells of the left barracks which had not been completed prior to Major Anderson's occupation. The gabled roofs were replaced with shallow vaulted brick roofs whose apexes were at the approximate level of the parapet. The officers' quarters were apparently only partially rebuilt. The casemated sections were made tenable again, but the outer rooms were left gutted and seemed to serve as galleries at all levels. The second-tier casemates were bricked in on the parade ground side and converted into additional quarters and storerooms. The openings for the embrasures were bricked anew with narrow loop-holes left at the centers. The exception was the three second-tier casemates at the salient angle which were made complete with paving stones and iron traverse rails, and fitted with guns. Stone masonry "counterforts," 10' to 12' thick, were placed against the exterior ends of the gorge wall to further protect the magazines at the first level. A brick "caponniere" housed two howitzers to the east side of the sally-port. On April 7th, as many as 95 guns and mortars were in place and ready for action (Barnes, 1950, pp. 3-7).

The first great bombardment was a naval assault commanded by Admiral Du Pont, which began April 7, 1863. Six ironclads led by the "Weehawken" steamed slowly up the main channel. General Beauregard had made many precautions in protecting the harbor, in addition to strengthening the forts that protected it. Mines stretched along detonating cables at both passes into the harbor, but were relatively ineffective. The combined forces of Forts Sumter, Moultrie and Wagner caused the most damage to the iron-clads, sinking the "Keohuk" whose guns were later dredged up and used in Fort Sumter. The fort itself suffered little damage in this first assault, having defied

"the most powerful and gallant fleet the world ever saw," in the estimation of General Gillmore, who led the Union forces (Burton, 1970, pp. 140-41).

Perhaps that is why General Gillmore had so little faith in the navy, as demonstrated in the second great bombardment of Fort Sumter that began at day-break on August 17, 1863. The General had established a beach-head on Morris Island and decided to level his sights first on Fort Sumter before attempting to take Fort Wagner on the island. The prolonged assault caused extensive damage to Fort Sumter, particularly the gorge wall. Two monitors, under the command of Admiral Dahlgren, also opened fire on the fort, causing extensive damage to the right flank wall. Over 1000 shells were fired against the fort during the first day. The second day brought more of the same. The left flank wall and barracks suffered extensive damage. Exceptionally high tides flooded most of Morris Island, temporarily stalling General Gillmore's attack. Then, on August 21st, with no response coming from Fort Sumter, General Gillmore demanded the surrender of both Forts Sumter and Wagner. Angered when no surrender came, General Gillmore began to fire on the city itself.

On August 24th General Gillmore wrote to General Halleck in Washington stating that Fort Sumter was "a shapeless and harmless ruins... reduced to the condition of a mere infantry outpost" and that attention could now be focused on Fort Wagner (Burton, 1970, p. 187). The ironclads also turned their attention on Fort Wagner, occasionally firing back at Fort Sumter to keep the garrison from remounting its guns. Fort Wagner was evacuated September 6-7th, and General Gillmore established a stronger position on Morris Island.

Admiral Dahlgren and General Gillmore differed, however, over the state of Fort Sumter. It was the Admiral's opinion that the fort was still serviceable and that it should be taken. Thus, on the night of September 8th, Admiral Dahlgren, with a force of several boats laden with 500 men, attempted to storm the fort. The 320-man garrison at Fort Sumter, however, was ready. The Union sailors and marines were met with a deluge of hand grenades, fireballs, brickbats and the like. The Confederate gunboat "Chicora" fired on the amphibious force as did guns from Forts Moultrie and Johnson. General Gillmore offered no cover fire, however, and over 100 Union men were killed and the rest captured or retreated.

Fort Sumter had indeed become a Confederate infantry outpost. The earlier assaults on the fort had left it without a single serviceable gun, and the men were reduced to being sharpshooters, annoying General Gillmore's men whenever they ventured out beyond the confines of Fort Wagner, which the General renamed Fort Gregg. Meanwhile, General Gillmore had 22,000 men entrenched on Morris, Folly and Kiawah Islands by early October. His intentions were unknown except that he seemed to be closing off the mouth of the

Stono River. (During this time, it was said, General Gillmore seemed to focus more energy on undermining Admiral Dahlgren's command than waging battle.)

On October 26th, Fort Gregg open fired on Fort Sumter in response to what General Gillmore saw as new guns being mounted on the right flank wall. Admiral Dahlgren dutifully responded with assistance, and a 41-day bombardment began. During the course of the battle, the top row of arches along the right flank gave way, killing 13 members of the Washington Light Infantry who had been the first to render their services to the State. Fearing another attempt by amphibious forces to breach the walls, Captain Elliot had guard boats put into position between the fort and Cummings Point. One Union soldier described the fort's crumbling walls as "sublime." In all, over 15,000 pounds of metal shot had battered the walls, principally the gorge and right flank. In his diary, General Gillmore noted that "the only original feature is the northeast face (right face); the rest is a pile of rubbish" (Burton, 1970, p. 202). Thus, the second great bombardment came to an end.

General Gillmore continued to fire at odd intervals "simply to prevent work being done on the inside while the navy are (sic) getting ready" (Burton, 1970, p. 206). Despite this, the garrison managed to mount a three-gun battery on the right face wall overlooking the approaches to the inner harbor. The garrison also dug an elaborate series of tunnels for the purposes of faster communication, living quarters and storage space. To make matters worse, on December 11, 1863, a fire raged through the tunnels, ignited by an accidental explosion in the small-arms ammunition magazine at the left gorge angle. The fire went on for several days, with walls and arches crumbled under the intense heat. General Gillmore responded by lobbing more fire into the smoldering ruins. Still the garrison managed to hold out, digging themselves in once again after the rubble and earth had cooled.

The third great bombardment began on the morning of July 7, 1864, and was commanded by General Foster who was now in charge of operations on Morris Island. It was General Foster's impression that Fort Sumter was again being strengthened and that it was necessary to demolish its walls once and for all. He used guns during the daylight and mortars at night to mount the most prolonged assault to date. By this time, however, the fort was an impregnable mass of rubble and earth and the shells had little effect. One wall stood, and General Foster and Admiral Dahlgren devised a scheme to float a raft laden with gun powder in position under the wall, bringing it down with a thundering explosion. Tidal currents pushed the raft safely away from the fort, however, and it exploded out in the harbor. General Foster, desperate in his attempt to take Fort Sumter, was not deterred. He devised another plan calling for two "assault arks" that would enable his troops to land on the parapet of

the one surviving wall (Burton, 1970, p. 300). He received no response from Washington regarding his plan. Instead, he was given orders to send his best troops to Virginia.

Washington had apparently given up on the idea of taking Fort Sumter as a means of accessing the inner harbor of Charleston. Fort Sumter had been the symbol of the Civil War and received much media attention, but campaigns at Richmond, Virginia, and Atlanta, Georgia, took precedence. Still, a sizable garrison remained at Fort Gregg under the command of General Saxton who had "no faith in the impregnability of Charleston" but was never given the chance to exercise his command.

THE RECONSTRUCTION OF FORT SUMTER
JANUARY, 1870 -- JUNE 9, 1876

At the close of the Civil War only portions of three walls remained: the left flank and both face walls. Earth and rubble slopes completely covered anything that remained of the gorge and right flank walls. On the interior, wood and earthen parados bolstered the surviving walls (drawer 66, sheet 86). For years nothing was done to the fort, except to clear the parade ground and set up a review stand for the ceremonial raising of the original garrison flag on April 12, 1865. Storms and tidal action revealed portions of the gorge and right flank walls during these years. Finally, an investigation was made in August of 1868, by Captain William Ludlow. He found that the left half of the gorge wall was sound up to the lintel height of the sally-port. The second-tier casemates at the three surviving walls were all but destroyed except for portions of the scarp wall embrasures. The scarp wall in these cases was badly destroyed and would have to be rebuilt. The right half of the gorge and the right-flank walls were completely destroyed.

At this time, General Quincy Adams Gillmore had plans drawn up for the reconstruction of Fort Sumter (drawer 66, sheet 88). The plan called for 28 casemates along wholly-reconstructed flank and face walls. Only the foundations of the old fort would be used. The new walls would be built of granite or gneiss. Earthen parados 5′ thick on the interior would protect the casemates against crossfire. The gorge wall would again serve as living quarters. The plan was very reminiscent of the original 1828 plan calling for casemated quarters with loop-holes instead of embrasures on the scarp wall. However, in General Gillmore's plan the wall would have a 10′ setback for 160′ of its length, and the two flanks at the gorge angles would be armed with "requa" batteries. A barbette tier would be built along the face walls toward the entrance to the inner harbor. The cost was estimated at $550,000 (Babington, 1954, pp. 5-8).

No action was taken by the Board of Engineers for Fortifications on the matter until January 1870. A different plan had been prepared by the Board and approved by Chief of Engineers, Brigadier-General A.A. Humphreys and Secretary of War William Belnap (drawer 66, sheet 89). The plan was seen as a temporary means of protecting the Port of Charleston, calling for the placement of 13 guns "en barbette" atop the ruins of the old fort. The scarp wall was to be levelled to a uniform height and parapets constructed to protect the guns. The right flank and gorge walls would be partially rebuilt and the earth and rubble recontoured according to plan. No provision was made for living quarters. A budget of $ 44,000 was approved (Babington, 1954, pp. 8-10).

General Gillmore was put in charge of the reconstruction project, with Captain Ludlow was the immediate on-site supervisor. Excavation on the gorge and right flank walls began in January. Suitable bricks and timbers were cleaned and would be reused in the reconstruction of those walls. The temporary Confederate sally-port on the left flank wall was cleared of debris and served as the entrance during this time, and a new wharf was built at this entrance. Work was suspended in 1871, however, when the clearing of the shipping channels into the harbor took precedence (Babington, 1954, pp. 10-15).

In December of 1871, new plans were drawn up for the placement of 10 "King's Depressing Carriages" to be mounted "en barbette." These carriages--perfected by Major King--could be raised into position from a depressed mount and lowered for reloading to provide better protection against the enemy (drawer 66, sheet 92). When work on the fort resumed in January 1872, General Gillmore used the revised plan as the basis of his work, although the "depressing carriages" were seen as too costly and other guns would probably be mounted (Babington, 1954, pp. 15-18). On February 17, General Gillmore suggested the excavation of the surviving casemates for the possibility of later use. General Humphreys approved only the excavation of the casemates along the right face wall (Babington, 1954, pp. 19-22).

By the end of June 1872, Captain Ludlow had the rubble and earth cleared down to the foundations of the right half of the gorge and the right-flank walls, and construction of the new scarp wall was begun. Eight of the right-face casemates were excavated, but only three were found to be in satisfactory condition. The arches and piers of five of them would have to be rebuilt (Babington, 1954, pp. 22-24). The report of work completed by June 1873 showed that the left and right face walls had been cut down to reference heights of 20' and 24' respectively, and prepared for coping. One second-tier casemate was left at the right shoulder angle to serve as a platform for a navigational beacon. The arches and piers of the excavated casemates were repaired. Another casemate had been designated as a

magazine to serve the guns that would be placed along that face. Two arched galleries were constructed to serve as passageways through the earth berm to the row of casemates. The salient angle casemates were uncovered and found in good repair (Babington, 1954, pp. 27-30).

By June 1874, the fort was taking on the appearance of the revised plans. The scarp wall was at its desired level all the way around the fort (the right flank and gorge sections had been rebuilt and the others levelled). The casemate to the left of center along the left flank wall had been selected as the new sally-port, replacing the temporary entrance which was bricked up and made into an embrasure again. Work had begun on a gallery leading from the new sally-port to the parade ground through the earth berm. The old cistern under the sally-port was made serviceable again. A cistern with a capacity of 75,000 gallons was laid at the main salient angle. Guns were mounted on the completed barbette tier along the right flank and both face walls (Babington, 1954, pp. 30-34). Reconstruction progressed well until the fall of 1874 when a severe storm shook Fort Sumter. The parade ground was flooded with water 8′ deep and the newly reconstructed right-flank wall was damaged along the parapet. Most of the temporary wooden structures were swept away.

The year 1875 saw the completion of the new sally-port and the gallery connecting it to the parade ground. The other casemates along the left flank and gorge angle were cleaned and repaired. The interiors of the casemates were plastered and the tops of their arches asphalted to serve as the base for the earthen barbette level. These casemates were to serve as guard rooms. New cisterns were laid within the parados and above the level of the parade ground to either side of the sally-port gallery (drawer 66, sheet 92). This was done to ensure a fresh water supply during times of heavy storms, since all the other cisterns had been flooded by salt water during the 1874 storm. Drains fed these new cisterns from points along the left flank wall. One of the casemates was modified into a concrete magazine. The gorge wall was supported by an earth berm, or parados, and nine mortars formed a line of fire along the wall. General Gillmore, however, requisitioned four gatlin guns to be placed along the gorge wall in order to repel potential amphibious assaults (Babington, 1954, pp. 36-38). Work on Fort Sumter came to a close on June 9, 1876. (A plan and elevations showing the original design, all modifications adopted, and exhibiting its general appearance on June 1, 1877, is filed in drawer 66, sheet 100 of the Records of the War Department in the National Archives.)

BATTERY HUGER
MARCH 17, 1898 -- DECEMBER 31, 1899

With the Spanish occupation of Cuba, a great excitement arose as to the weakened condition of the coastal line of defenses along the

Eastern Seaboard. Fort Sumter itself had fallen into disrepair. Only an ordnance sergeant and a lightkeeper (and their families) had been occupying the fort--in two wooden houses built atop the earth berms. The guns were no longer serviceable, having rusted in their carriages and the carriages rusted in their traverse rails. Another severe storm had swept over the fort, washing away the wharf at the sally-port entrance and the lightkeeper's house (previously evacuated), toppling several of the barbette mounted guns, and carrying away over 70,000 cubic yards of earth and sand (Comstock, 1954, pp. 3-4). But, with the impending threat of conflict, repairs were begun and defenses built up.

In December 1895, Engineer Frederic Abbot devised a grillage of steel beams "so disposed as to form the tension members of a truss, of which the concrete itself forms the web and compression members" to float a concrete battery on the sand layer of the parade ground (Comstock, 1954, p. 6). Two massive 12" rifled guns--one on a disappearing carriage and the other on a non-disappearing mount--would be housed in a concrete battery that floated on the sand and loam soil of the parade ground, with earth fill between it and the right-flank wall to absorb enemy shell fire (Comstock, 1954, pp. 1-2). In all, the battery would take up approximately two-thirds of the parade ground. The battery was to be named after Isaac Huger, Brigadier General of the Continental Army.[11] In March 1896, a new wharf was constructed, stretching out from the right shoulder angle. It bridged the scarp wall and formed a landing at the barbette level. The right flank wall had again suffered damage in the latest storm and was repaired. A 455' artisan well was located in the parade ground (Comstock, 1954, p. 7). Despite all the preparations, however, the Spanish-American War came to an end in August 1898, with no shots having been fired on American soil.

Construction on Battery Huger--which had only just begun--and other improvements to the fort would continue, however. The work came to a close on December 31, 1899. In a report filed by Major Ruffner to General John Wilson, dated December 29, 1899, he announced the virtual completion of the battery. The massive concrete bulwark housed two 12" rifled guns, one on a concrete center-pintle platform, nearly 12' in radius and raised approximately 3' above the surrounding floor. The other on a disappearing, front-pintle carriage sunk approximately 6' below the parapet. The parade ground between the battery and the right flank wall was built up with earth to the level of the parapet, and the ground between the battery and the left-flank wall was raised 15' to conceal passageways that connected points about the fort. The right face and salient angle casemates were closed and partially filled with earth and sand. The 1876 galleries were closed off except for the one emanating from the sally-port. A two-story building that would serve as barracks for 50 men was built near the left gorge angle, as was a two-story ordnance sergeant's quarters. At the left shoulder angle was a lighthouse,

bell tower and oil house with adjacent lightkeeper's house, serviced separately from the military structures (Comstock, 1954, pp. 11-26).

THE EXCAVATION OF THE RUINS
AUGUST 7, 1951 -- MAY 13, 1959

On July 12, 1948, Fort Sumter was transferred from the Department of War to the National Park Service. It had long ceased to be an active military installation--the two 12-inch rifled guns had been removed in 1943--and served principally as a navigational point into the harbor. The beacon was still mounted over the left shoulder angle of the casemates. There was a lightkeeper and his family living in the quarters that were now part of the U.S. Coast Guard. Gray Line Tours conducted interpretive visits to the fort, with as many as 200 visitors on a single boat during peak season. A flagpole memorial, commemorating the original garrison flag, and a Federal Garrison Monument listing the names of the officers and enlisted men who comprised the First Artillery Unit under the command of Major Robert Anderson at Fort Sumter in 1860-61, had been erected in 1932.

In 1949-50, a management plan was adopted that called for the excavation of the Civil War ruins and removal of all objects that did not relate to that period, with the exception of Battery Huger and a mining casemate that had been made out of one of the historic gun rooms. The flagpole memorial and Federal Garrison Monument were moved and later reinstalled in new locations. Work commenced on August 7, 1951, with the first objective being to clear the area between the left flank sally-port and the left gorge angle. Two granite emplacements that had been laid during General Gillmore's reconstruction efforts were removed, as was the old brick archway that served as a gallery in the 1870s. Salvaged stones were utilized to stabilize the roof over the first-tier casemates (Luckett, July 23, 1952).

After a long pause, work resumed on the southwest quadrant of the fort in August of 1955. Wall remnants and portions of the brick floor of the left-flank barracks were uncovered. In the process, many artifacts were found: fragments of earthenware, cast-iron pots and utensils, shrapnel, door hinges, fireplace grills and terra cotta pipe from the original drainage system (Comstock, June 30, 1955).

From May 7-June 21, 1956, excavation work shifted to the officers' quarters along the left half of the gorge wall. In all, the two magazines were uncovered and portions of seven other rooms. The surviving walls were cleaned and the brick courses repointed. The parade ground, still at its 1899 level, was sloped toward the ruins and stabilized with sod. Evidence of Confederate modifications (1863-65) to the magazines was revealed as well as the effects of a

December 11, 1863, explosion that rocked the 6' thick masonry wall, separating the magazines on its base (which was stabilized at this time). Metal basket grates were found intact in the flues of the casemated kitchen and parlor. The tabby-concrete sub-floor was uncovered as well as a section of the original wood flooring. Relocated granite window sills and a break in an interior storeroom wall revealed modifications probably done during Major Anderson's occupation. Further remnants of the terra cotta and cast-iron drainage system were found, as well as numerous well-preserved artifacts including china fragments, whole glass and crockery bottles, musket barrels and small arms cartridges. There were also scattered bones that could not be identified (Sheely, Jr., June 21, 1956).

Excavation of the northwest quadrant of the fort took priority from March through May of 1957. The entirety of the wall and fireplace remnants and brick flooring of the left-flank barracks were revealed. Another granite gun emplacement laid in the 1870s was removed, as well as a brick cistern not original to the plan. Granite radiating steps, presumably of the left shoulder angle stairwell, were found in the parade fill as well as door knobs and latches, and a T-iron rail and solid steel stanchion that may have been a part of the second-story flooring system (Sheely, Jr., May 28, 1957).

The last major excavation work occurred from December 29, 1958 through May 13, 1959. At this time the right face and salient angle casemates were unearthed and the masonry retaining walls enclosing the rear of the casemates removed. Holes were filled with concrete in the roofs of the casemates that had been made in 1898-99. The last of the concrete magazines and cisterns from the Spanish-American War era were removed as well as the concrete gallery that emanated from the sally-port. The parade ground to the west of Battery Huger was cleared down to its original level, revealing many more artifacts including several guns (some well preserved), timbers that apparently buttressed the rears of the casemates during the Confederate occupation, and the usual shrapnel and other military artifacts. The remnants of the granite-paved esplanade and wharf were uncovered. The flagpole memorial and Federal Garrison Monument were relocated to their present locations (Luckett, May 13, 1959). The beacon remained as did the occupation of the U.S. Coast Guard house, but were later removed when a beacon was located at a point farther out from the fort.

CONDITION OF FABRIC

Structurally the fort is in sound condition with the exception of those casemates at the salient angle which show much deterioration in the vaults. This appeared to be due to the fact that the entire

length of the left face casemates had fallen in and the salient angle casemates were no longer being buttressed. Efforts were being made to stabilize the left casemate of the salient angle.

Battery Huger's only impact on the walls of the fort was on the gorge wall at the approximate location of the original sally-port where the end wall met with the reconstructed wall of the 1870s. The battery actually floats on the sand and loam soil of the parade ground. Any settlement that has occurred would only affect that portion on the gorge wall.

Cracking can be seen along the entire length of the surviving right face and left flank casemates. This is apparently due to the fact that the vaulted ceilings of the casemates meet directly at the apexes of the side-arches. At these points the arches (which were designed as platform arches supporting the floor of the second-tier casemates) are without support and would have a tendency to give away at the center.

These cracks probably deepened when General Gillmore made significant changes to the structure during the years 1870-75. The shelling of the fort during the Civil War would have been enough to cause extensive damage throughout, but when General Gillmore loaded the platform arches over the first-tier casemates with concrete and earth, forming an earthen parapet in front of the granite gun emplacements, he put more of a load onto these platform arches than they were designed to take. They were meant to serve only as the sub-flooring of the gun rooms along the second tier.

Over time this cracking has no doubt deepened due to the settlement of the foundations upon which the piers of the casemates rest. In his 1959 report, Heath Pemberton noted a settlement of over 4' at the right gorge angle alone. Further cracking along the right face casemates may be due to the deteriorating salient angle casemates. Rainwater seeping through the cracks would also contribute the deterioration process.

The vaults were designed to support each other throughout the interior of the fort. With that portion of the left face casemates gone the vaults are now free to shift in their positions. The earth fill to the east of the battery forms a buttress at the right shoulder angle and the casemate that was fortified with concrete and adapted into a mining casemate buttresses the surviving casemates along the left flank wall. Enough of the heavy masonry magazines remain to buttress the left flank and left gorge angle casemates at the opposite end.

There are many vestigial reminders of the officers' quarters and the left flank barracks. Also, there is evidence of the efforts of the Confederate garrison to buttress the magazines at the left gorge

angle against crossfire. Former loopholes can be seen in the casemated sections of the gorge wall and the doorways onto the esplanade can be discerned even though they have since been filled with tabby concrete. The earth fill in front of the battery, to the right flank wall, would not reveal much of the structure of the fort if excavated. During General Gillmore's reconstruction efforts the ruins along the right flank and right half of the gorge wall were cleared down to their foundations. One could only hope to find more artifacts and the granite gun emplacements laid during General Gillmore's reconstruction work.

The original cisterns at both face walls and the left flank wall are still intact with concrete covers atop them. There are small covered openings to the cisterns below. Remnants of the terra-cotta drainpipes that fed rainwater from the original terreplein into the cisterns can be found within the outer piers of the surviving casemates and in the anteroom of the left gorge angle magazine. The cylindrical drainpipes were fitted into rectangular niches in the piers with brick supports at approximately two-foot intervals within the niches. Evidence of the brick supports can be found in the anteroom.

There are also metal drainpipes from the time of the construction of Battery Huger (or afterward) that have in some cases been retrofitted in the niches for the original terra-cotta drainpipes. It is questionable that these pipes feed into the cisterns. More likely they serve simply as downspouts to shed water from the roofs over the casemates.

The strongest visible evidence of the circular stair-towers is at the salient and left gorge angles where fragments of the radiating granite steps are still embedded in the ruins of the stair-towers.

The narrow "passageway" at the extreme end of the right face casemates appears to have been formed during the time of the Confederate occupation and was originally one of the entrances to the right shoulder angle stair-tower. It is a dead-end corridor but at one time led into a tunnel along the right flank wall.

There are several surviving granite window sills and two questionable marble sills that in all likelihood could have been the mantlepieces over the adjacent parlor fireplaces. There is also a remnant of the cast-iron supporting pieces for the cast-iron mantlepiece in the kitchen of the officers' quarters. A 1963 photograph showed the cast-iron mantle and grill intact.

In the anteroom adjacent to the magazine at the left gorge angle are remnants of the cast-iron door frame and hinges. Presumably, it was a copper-plated door that was set in the frame to reduce sparks from potential crossfire.

In the ventilator of the magazine adjacent to the kitchen is evidence of the molten iron Major Anderson used to seal the ventilators and avoid a possible explosion in the powder magazines. Also of note in the magazines are niches that were bricked over. The first is adjacent to the interior passage between the two magazines and the second is to the left of what appears to be a bricked-over doorway that would have led into the extreme left gorge angle casemate. However, there is no evidence of this doorway on the other side of the wall separating the casemate from the magazine. One assumption is that the niches were used to set down hurricane lamps or some other light sources. The "sealed doorway" seems completely incongruous with the plan of the fort.

On the exterior, portions of the esplanade and wharf can still be seen along the gorge wall. Along the left face wall is what appears to be the original granite and ballast stone enrockmant. Evidence of wooden docks and wharfs can be seen at the left face wall and in front of the gorge wall. The earthen mound emanating from the left gorge angle was made from the fill taken from the parade ground during the time of the excavation of the ruins in 1951-59. A septic tank and drain field were laid during recent years. A wharf and dock serve as the entry point for visitors. The first was built in 1959, replaced in 1991.

Several modern alterations have been made to Battery Huger to accommodate visitors, including a museum where one of the guns is mounted, a concessions store, and support facilities for the rangers and maintenance personnel who serve the national monument. The water main emanates from James Island. The electric cable was destroyed during Hurricane Hugo in 1989 and has yet to be replaced. Since then, electricity is provided by a diesel-powered generator.

CONCLUSION

Fort Sumter is currently one of the most visited Civil War era monuments or sites. As the location of the battle that began the Civil War, it is probably the single most recognizable symbol of that war. Both Union and Confederate forces found themselves on opposing sides an issue that at the time neither thought would explode into war. Each side, standing on the principles on which their union was based, was hastily forced into action. President Lincoln, believing the ordinances of secession to be an illegal act of insurrection, could no longer ignore Major Anderson's requests for supplies. Not to respond would have meant acknowledgment of southern secession, and the relinquishing of federal property. The southern forces, having seceded from the Union, could not bow to federal authority. Thus, the course of action for both sides was inevitable; the union forces had to attempt to resupply Fort Sumter and the Confederate forces had to attack. Thus came the Civil War.

Within a few days of the Battle, Virginia would join the seven southern states which had seceded from the Union before the fall of Fort Sumter (South Carolina, Mississippi, Florida, Alabama, Georgia, Louisiana and Texas); within the next couple of weeks they would be joined by Arkansas, North Carolina and Tennessee. The war would continue for four years during which time the fort would be attacked, rebuilt and attacked again. Despite numerous Union attempts to recapture it, Fort Sumter would not be regained by the Union forces until the close of the Civil War. Burned out, with its fallen walls buttressed by its own rubble, the fort would remain a confederate stronghold throughout the war. Thus, to the southern cause, Fort Sumter was a symbol of their defiance of what they viewed as northern aggression and self-interest, and their fight for independence.

ENDNOTES:

1. Thomas Sumter was born on August 14, 1734 in Virginia. He became a Lieutenant Colonel in the Second Regiment (Riflemen) on February 29, 1776 and was at Haddrell's Point on June 28, 1776. As a Colonel and Brigadier General of militia units from South Carolina and neighboring states he was known as the "Gamecock of the Revolution" and was active at Hanging Rock, Wemyss's Defeat and other battles. He was wounded at Fish Dam Ford and at Blackstock's Plantation. He died June 1, 1832 (Moss, Roster of South Carolina Patriots in the American Revolution, 1983, p. 908).

2. The Lincoln administration referred to the border states as Virginia (whom the Union most wanted to retain but only succeeded in splitting the state and retaining West Virginia; the remainder of the state seceded 17 April 1861), Maryland (which the Union was able to retain), Arkansas (seceded 6 May), North Carolina (seceded 20 May), Kentucky (declared itself neutral), Tennessee (seceded 8 June) and Missouri (bitterly disputed but retained in the Union).

The gulf states referred to those already seceded as of March 15, 1861 and included South Carolina (20 Dec 1860), Mississippi (9 Jan 1861), Florida (10 Jan), Alabama (11 Jan), Georgia (19 Jan), Louisiana (26 Jan) and Texas (1 Feb). The Territory of Arizona seceded 16 March 1861 and was made a provisional state in the new Confederacy (The Civil War Almanac, 1983, pp. 41-74).

3. In the first report by the Board of Engineers submitted on February 7, 1821, Charleston was placed in the second order of cities to be defended. However, a subsequent report submitted on

March 24, 1826, the Board moved Charleston to the first order of cities to be defended: great cities or cities with naval establishments, roads of rendezvous and positions which an enemy might occupy for the war to the great injury of the country (American State Papers, Military Affairs, III, 293, pp. 299-302).

4. An act of Congress, March 20, 1794, provided for the outright cession to the Federal Government by the State of the sites for the establishment of permanent fortifications (Pemberton, 1959, pp. 4-5 of "footnotes"). Apparently, South Carolina had made "outright cession" of several sites in and around Charleston Harbor for that expressed purpose in 1805 but during the period of 1830-35 challenged this particular act of Congress as well as the idea of the Union in general. The State relented to this act in December, 1840. Also, plat map, drawer 66, sheet 5.

5. This new "pier system" was a revision of a previous plan calling for a grillage of palmetto logs with the piers of the casemates resting atop them. The palmetto logs proved unsuitable under stress tests and Captain Bowman's new plan was adopted.

6. (6) Heath Pemberton did a comparative analysis of several resources to determine the degree of settlement. Among them were:Barnes, Frank, "Fort Sumter, December 26, 1860", November 23, 1949;Comstock, Rock, "Fort Sumter, 1899", June 8, 1954; Sanford, J.C. (Captain), a survey prepared July 23 - Aug. 10, 1901; and Totten, J.G. (General), in a letter to Captain G.W. Cullum, April 2, 1855.

"The large amount of subsidence in the seaward half of Fort Sumter disclosed by the table (several tables are found in correspondence with Captain Bowman and Lt. Kurtz) satisfies me that unless a most urgent necessity should arise, the floor arches of the second tier ought not to be turned until the settlement becomes less reduced (Totten to Cullum, 1855)."

The problem has continued to magnify since then. Tidal action has its strongest effect on the seaward side of the fort, not to mention the several severe storms that have swept the harbor over the years since the construction of the fort. The Port of Charleston is one of the busiest ports along the Eastern Seaboard and substantial dredging has occurred in the harbor over the years, particularly in relationship to the seaward side of the fort.

Mr. Pemberton also mentions the parade ground to the east of Battery Huger serving as a watershed (Pemberton, 1959, p. 7 of "footnotes"):

> "The seepage from the cracks in the walls makes it apparent that it collects and releases rainwater. Undoubtedly much

water filters out under the bases of the walls."

The two readings taken at the right shoulder and right gorge angles verify the settling of the fort toward the seaward side. A drop of 4.67 feet at the right shoulder angle and a drop of 4.43 feet at the right gorge angle. This was a comparative analysis of the elevations in 1901 and 1951 (Pemberton, 1959, pp. 6-7 of "footnotes").

7. Heath Pemberton, in his 1959 report, calculated the capacity of the surviving cisterns (left flank, right and left face walls) as being 5200 gallons each and the sally port cistern as 4300 gallons (based on the drawings). However, in an 1851 letter from Lt. Kurtz to Gen. Totten, the sally port cistern was said to have a capacity of 10,000 gallons (Pemberton, 1959, p. 17).

Two parade ground cisterns were planned but never executed, to be placed in relation to the gorge angles (Pemberton, 1959, p. 18).

There was an artisan well located in the parade ground but it never seemed to fulfil the water requirements of the fort (Pemberton, 1959, p. 12 of "footnotes").

8. The forts included those along the coast of the Gulf of Mexico with the exception of Fort Pickens at Pensacola, Florida, and Forts Taylor and Jefferson at the southern end of the state on the islands of Key West and Dry Tortugas. Attempts were made to take Forts Johnston and Caswell on the North Carolina coast but the state had not yet seceded and Governor Ellis ordered the citizens of Wilmington to return the forts to the ordnance sergeants who had been unceremoniously removed (Catton, 1961, pp. 186-87).

9. The Peace Convention grew out of a January 19, 1861, meeting of the Virginia General Assembly. A joint resolution called for a conference of all the states in Washington, DC, and got under way on February 4. It was headed by former President John Tyler and had 131 members -- distinguished Americans, mostly elder statesmen who the press (shut off from the proceedings) referred to as "political fossils". In all 21 states were represented. In addition to the seceded "gulf states", California, Oregon, Arkansas, Wisconsin, Michigan and Minnesota were not represented.

From the start the convention was seen as a weak attempt to forge a compromise that would draw the seceded states back into the Union but at the time it was the only hope to avoid collision and both Presidents Buchanan and Lincoln entertained the delegation. It quickly became apparent that Republicans were as "obstructionist" as were southern Democrats on the issues of extending the old Missouri Compromise Line to the West Coast and stiffening the fugitive slave law. In the two months leading up to the Civil War

it provided little more than a forum to beleaguered politicians (Catton, 1961, pp. 237-40).

10. Lt. General Winfield Scott had long advocated firm measures in response to the rising tide of secession talk in the gulf states but his views had fallen on deaf ears in the Buchanan administration. As early as October 29, 1860, the General had stated his opinion in a paper entitled "Views Suggested by the Imminent Danger of a Disruption of the Union by the Secession of one or more Southern States". This he submitted to Secretary of War Floyd but was subsequently ignored. Among other views, General Scott called for the occupation of all the forts along the Gulf Coast but in the Union army there were only 16,000 active soldiers. President Buchanan upon reading the "Views" of General Scott in a daily journal in Washington on January 18, 1861, was to say the least "surprised" at the audacity of some of General Scott's suggestions which also called for the sectioning of the country (Northeast, Southeast, Southwest and Northwest) so that it could be better administrated, militarily (Crawford, 1896, pp. 163-67).

Lt. General Scott had solicited the views of Mr. Lincoln on the potential occupation of the forts in a letter predating the secession of South Carolina. President-elect Lincoln responded that "if the forts shall be given up before my inauguration, the General must retake them afterward" (Catton, 1961, p. 170). However, by March 4, Generals Scott and Totten saw the situation as hopeless. With so many forts in Confederate hands it would take a force much larger than 16,000 men to retake them. Virginia had threatened to repel any Union army that attempted to march through its land which such an army would have to do in order to reach the forts in question.

Virginia was seen as the keystone state to the formation of a Southern Confederacy and all efforts were made by both the Buchanan and Lincoln administrations to retain the state within the Union (Catton, 1961, pp. 195-96). At one point (March 17, 1861) President Lincoln was willing to give up Fort Sumter if the Virginia Convention would not pass an Ordinance of Secession on the floor (Crawford, 1896, pp. 310).

Once President, Mr. Lincoln reviewed plans for the re-supply of Forts Sumter and Pickens but Fort Pickens was given priority. The President agreed with General Scott that Fort Sumter was at the mercy of the Confederate forces that surrounded it but felt the attempt should be made to re-supply it. However, President Lincoln felt that Fort Pickens was defensible despite General Totten's views otherwise. The "Powhatan" was sent to Fort Pickens and aided in the successful re-supply of the fort (Crawford, 1896, pp. 401-20).

The President was being pressured from both ends of the political spectrum. His cabinet with the exception of Postmaster General Montgomery Blair and Secretary of the Treasury Salmon Chase were in favor of a withdrawal from both Forts Sumter and Pickens in an effort to appease the border states and Virginia in particular. However, the young Mr. Blair's father, Francis P. Blair, was a very influential man in the Republican party and the Postmaster General reminded Mr. Lincoln of his duty to the party. Despite overwhelming disapproval within his cabinet, President Lincoln adopted the plans put forward by Captains Fox and Meigs for the re-supply of Forts Sumter and Pickens respectively (Crawford, 1896, pp. 357-64; pp.408-16).

In a memorandum dated March 15, 1861, Lt. General Scott advocated the evacuation of Forts Sumter and Pickens to "render" to the eight remaining slave-holding states "their cordial adherence to the Union perpetual" but by no means giving up Forts Taylor and Jefferson. A seemingly abrupt shift from his earlier stated "Views" (Crawford, 1896, p. 363).

11. Isaac Huger was born on March 19, 1742 (or 1743). He served as a Lieutenant in the Cherokee War and became a Lieutenant Colonel in the First Regiment on June 17, 1775. He later became a Colonel in the Fifth Regiment on September 16, 1776 and Brigadier General of the Continental Army on January 9, 1779. He was wounded at Stono Ferry on June 20, 1779, and again in the battle of Guilford Courthouse on March 15, 1781. He died October 17, 1797 (Moss, 1983, p. 470).

APPENDIX A

A LIST OF DRAWINGS AVAILABLE THROUGH THE NATIONAL ARCHIVES REGARDING FORT SUMTER NATIONAL MONUMENT

The following list of drawings is catalogued according to drawer and sheet number and is on file under the "Records of the War Department, Office of the Chief of Engineers" at the National Archives. Photostats of the originals are available at the Visitors Center of the Fort Sumter National Monument. They are similarly filed as to drawer and sheet number, which for the most part are in chronological order.

Drawer 66 - Sheet A --Five hand-written pages of history and condition of the fort in 1886 and plan of reconstruction

- Sheet 1 -- Plan for Fort adopted December 5, 1828
- Sheet 2 -- Plan, sections, conditions of foundations in the years 1831-35
- Sheet 3 -- Condition of Work (plan) in 1831-33 and proposed alteration, 1834
- Sheet 4 -- Plan of Wharf
- Sheet 5 -- Plat map exhibiting portion of shoal ceded U.S.
- Sheet 6 -- Section, profile, showing arrangement of foundations
- Sheet 8 -- Foundation, September 30, 1841
- Sheet 9 -- Condition of Work on September 30, 1842
- Sheet 10-- Sketch of foundations, 1843
- Sheet 11-- Condition of Work on September 30, 1843
- Sheet 12-- Condition of Work on September 30, 1844
- Sheet 13-- Foundations, 1845
- Sheet 14-- Series of profiles, 1845
- Sheet 15-- Sketch of part of gorge wall with proposed modifications, 1845

- Sheet 16-- Similar sketches of gorge wall, 1845

Drawer 66 - Sheet 17-- Condition of Work on September 30, 1845

- Sheet 18-- Soundings about the fort, 1845

- Sheet 19-- Elevations of typical embrasure

- Sheet 20-- Sketch of pavement of casemate

- Sheet 21-- Drawing of proposed tide gauge

- Sheet 22-- Sketch showing arrangement of quarters and barracks on gorge wall

- Sheet 23-- Sketch of proposed modification of gorge wall

- Sheet 24-- Soundings, 1846

- Sheet 25-- Plans of three stories of officers' quarters along gorge, 1846

- Sheet 26-- Plans of first floor of East flank and second floor of Southeast flank, 1846

- Sheet 27-- Plan of first and second floors, Northeast face, 1846

- Sheet 28-- Sections of gorge wall, 1846

- Sheet 29-- Sections of Southeast flank, 1846

- Sheet 30-- Sections of Northeast face, 1846

- Sheet 31-- Sections through stair-tower and casemate and salient angle, 1846

- Sheet 32-- Plan of barbette tier, Northeast face, roof adjacent casemates, 1846

- Sheet 33-- Plan of barbette tier, East flank, third story soldiers' barracks, 1846

- Sheet 34-- Sketch of postern at sally-port of gorge, 1846

- Sheet 35-- Sections and elevations through gorge, 1846

- Sheet 36-- Condition of Work: plan, sections and elevations, 1846

- Sheet 37-- Chimney flues in barracks, 1847

- Sheet 38-- Machinery designed for portcullis

Drawer 66 - Sheet 39-- Condition of Work: plan, elevations and details, September 30, 1847

- Sheet 41-- Condition of Work on September 30, 1848

- Sheet 42-- Condition of Work on September 30, 1849

- Sheet 43-- Condition of Work on September 30, 1850

- Sheet 44-- Details of drainage system in casemates

- Sheet 45-- Soundings around wharf, 1851

- Sheet 46-- Plan of magazine at gorge wall, 1851

- Sheet 47-- Sketch of stairways at angle conditions

- Sheet 48-- Plan of roof over casemates of part of gorge wall, West flank angle

- Sheet 49-- Sketch of iron stairways in barracks

- Sheet 50-- Section of tablet of parade wall

- Sheet 51-- Sketch of the positions of barbette guns, 1851

- Sheet 52-- Arrangement of traverses and centers of barbette guns, 1852

- Sheet 53-- Plans and elevations of officers' quarters, 1851

- Sheet 54-- Plans, sections and elevations of loophole windows and doorways in gorge wall

- Sheet 55-- Plans of a portion of the front wall of barracks

- Sheet 56-- Side chimneys in barracks

- Sheet 57-- Gable chimneys in barracks

- Sheet 58-- Plan, section and elevation of loophole window

- Sheet 59-- Section through middle of first pier at left gorge angle

- Sheet 60-- Details of flooring system of barracks

Drawer 66 - Sheet 61-- Condition of Work, September 30, 1851

- Sheet 62-- Plan of roof over casemates

- Sheet 63-- Sketch including masonry dimensions of first floor of Southeast Barracks

- Sheet 64-- Sketch of stairs at three port angles

- Sheet 65-- Elevation of barracks in relationship to parade ground, 1854

- Sheet 66-- Similar elevation of officers' quarters, 1854

- Sheet 67-- Plan of Barbette tier at left gorge angle

- Sheet 68-- Plan of a portion of right flank wall and third story barracks

- Sheet 69-- Plan of barbette tier at Northeast face

- Sheet 70-- Section through the middle of first pier at left gorge angle, 1854

- Sheet 71-- Sketch of the positions of barbette guns, 1854

- Sheet 72-- Plans and elevations of iron water tanks for all quarters, 1855

- Sheet 73-- Sketch of arrangement of pintle centers,etc, on gorge wall, Northeast and north faces, 1855

- Sheet 74-- Sections of flooring system in barracks

- Sheet 75-- Sketch of the proposed arrangement of barracks floors, 1856

- Sheet 76-- Sections of flooring system in barracks

- Sheet 77-- Design of brick coping and supporting corbels

- Sheet 78-- Plans, sections and elevations of embrasures, 1856

- Sheet 79-- Sketch of barbette tier

- Sheet 80-- Plans, sections and elevations for boat harbor adjacent to esplanade, 1858

Drawer 66 - Sheet 81-- Plan of right gorge angle, 1860

- Sheet 82-- Plans of fort in 1861

- Sheet 86-- Plans and profiles of the fort at the time of its capture on February 18, 1865

- Sheet 88-- General Gillmore's plan for the reconstruction of the fort, 1868

- Sheet 89-- Revised plan by the Board of Engineers, Chief of Engineers General A.A. Humphreys, 1870

- Sheet 90-- Sketch showing the proposed location of the dock, 1870

- Sheet 91-- Plan and elevations of the proposed wharf, 1870

- Sheet 92-- Plans and profiles showing modifications to the 1870 plan, December 1871

- Sheet 93-- Sketch, 1872

- Sheet 94-- Plan of Northwest face, showing modifications proposed and sally-port, October, 1872

- Sheet 95-- Plan of Northeast face and part of Southeast North face showing proposed modifications, October, 1872

- Sheet 96-- Plan showing proposed emplacements of four siege piers, 1874

- Sheet 97-- Barbette plan showing Northwest front, November, 1875

- Sheet 98-- Proposed modifications of the traverses, May, 1874

- Sheet 99-- Plan and elevations of boat harbors

- Sheet 100- Plan and elevations as the fort appeared June 1, 1877

- Sheet 101- Sections and elevations (unfinished), 1888

- Sheet 102- Proposed arrangement of torpedo cables, 1891

- Sheet 103- Proposal for mining casemate, April 1891

Drawer 66 - Sheet 104- Sketch showing damage by hurricane, August, 1893

- Sheet 105- Diagram showing proposed work, September, 1895

- Sheet 106- Scene showing borings made, August, 1893

- Sheet 107- 1 - I-beams of gun and battery

- Sheet 107- 2 - First floor of gun and battery

- Sheet 107- 3 - Second floor of gun and battery

- Sheet 107- 4 - Top floor of gun and battery

- Sheet 107- 5 - Longitudinal section

- Sheet 107- 6 - Cross sections

- Sheet 109- 2 - Drawing showing outlines for 12-inch emplacements and building site for quarters, 1898

- Sheet 109- 3 - Drawing showing old and works and new battery

Drawer 64 - Sheet 8A-- Chart of eastern extremity of Charleston Harbor showing the location of the proposed fort, 1828

- Sheet 81-- 3 - Barbette plan with sections showing the condition of work and proposed gun-lift battery, April, 1893

- Sheet 87-- 4 - Casemate plan showing the condition of work and proposed gun-lift battery, April, 1893

The above list was taken from a Historical Research Management Plan prepared by John T. Willett for the Fort Sumter National Monument, May 9, 1949. This list was submitted to the National Archives by Fort Sumter National Monument and to a great extent photostats of these drawings were provided. Mr. Willett also requested a list of manuscript correspondence that served as the basis of the work done by historians at the Park in the subsequent years (Please see the Management Plan for this list).

APPENDIX B
BIOGRAPHY OF MAJOR ROBERT ANDERSON

Robert Anderson was born near Louisville, Kentucky on June 14, 1805. His father had served as a Lieutenant Colonel in the American Revolution. He graduated from the Military Academy at West Point in 1825 and was commissioned into the Third Artillery. He became the Instructor for Artillery at West Point from December, 1835-37, at which time Lt. Beauregard was his assistant. He served on various artillery boards and translated a number of French artillery texts. He was Aide-de-Camp to General Winfield Scott in 1838 and was brevetted Captain for gallant and successful conduct in the Indian Wars in Florida that same year. He was an Assistant Adjutant-General (while captain) from 1838-41. In October 1841, he was appointed Captain in his own regiment. He again served under General Scott in the Mexican War and was severely wounded at Molino Del Rey at which time he was brevetted Major for gallant and meritorious service on September 8, 1847. He was made a Major in the Regular Army in 1857. In 1860 he was placed in command of the forts surrounding Charleston Harbor (Warner, Generals in Blue, 1964, pp. 7-8; Leslie, Pictorial History of the War of 1861, p. 12).[1]

After the evacuation of Fort Sumter Major Anderson was appointed a Brigadier General in the Regular Army by President Lincoln and was sent to his native state of Kentucky to assist in organizing and directing the Union element there. He was subsequently placed in command of the Department of the Cumberland. His health began to fail him and he was relieved of his duties. In October 1863, he was placed on the retired list of the army at his request. He was present at the commemoration services of the original federal garrison flag at Fort Sumter on April 14, 1865, at which time he was brevetted a Major General for his gallantry in the battle at the fort exactly four years previous. He travelled abroad but his health continued to fail him. On October 27, 1871, he died in Nice, France (Crawford, 1896, pp. 451-52; Warner, 1964, pp. 7-8).

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[1] Mr. Warner and Mr. Leslie differ on the date that Major Anderson received this rank. Mr. Leslie gave the date as July, 1848. Since Pictorial History of the War of 1861 was not directly available Mr. Warner's date was taken.

APPENDIX C
BIOGRAPHY OF GENERAL P.G.T. BEAUREGARD

Pierre Gustave Toutant Beauregard was born in Saint Bernard Parish, Louisiana on May 28, 1818. He graduated in the second class of 1838 at West Point, a portion of which time he spent as Assistant Instructor of Artillery to Captain Robert Anderson. He was an engineer officer on General Winfield Scott's staff in the Mexican War and received two brevets for gallantry. In January 1861, he was made the Superintendent of the Military Academy at West Point but resigned in March to be appointed Brigadier-General in the Provisional Army of the Confederate States of America. He was placed in command in Charleston and supervised the reduction of Fort Sumter in April 1861.[2]

He was placed second in command to General Joseph E. Johnston at First Manassas and commissioned a full General on July 21, 1861. In 1862 he was placed second in command to General Albert Sidney Johnston at Shiloh and assumed command of the Army of Tennessee when Johnston was killed. While on sick leave he was relieved of his command by General Braxton Bragg. His relationship with President of the Confederacy Jefferson Davis deteriorated and he was placed in charge of defense of the South Carolina and Georgia coast, especially in defending Charleston in 1863-64. In May of 1864, he supported General Robert E. Lee in Virginia and is credited for saving Richmond by discerning U.S. General Grant's intentions against Petersburg.

He returned to New Orleans, Louisiana, at the close of the War. He went on to become president of two railroads, and with Jubal A. Early supervised the drawings of the Louisiana Lottery. For many years he was adjutant general of the state. He died in New Orleans on February 20, 1893 (Warner, Generals in Gray, 1959, pp. 22-23).

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[2] There is a discrepancy in Mr. Crawford's account of General Beauregard's rank, referring to him as Major throughout his text. This may be due to the fact that General Beauregard was a Major while Superintendent at West Point. It is clear from Mr. Warner's account that General Beauregard was recognized as such by the Confederate Army.

APPENDIX D
BIOGRAPHY OF GENERAL Q.A. GILLMORE

Quincy Adams Gillmore was born near Lorain, Ohio on February 28, 1825. He received an appointment to West Point at the age of 20 and graduated at the head of his class in 1849. He was commissioned into the Corps of Engineers. He was an instructor at West Point and was on active service at Hampton Roads and New York City.

He was chief engineer of the Port Royal expedition in 1861-62, which effected a Union lodgement on the Carolina coast. His greatest accomplishment was his successful scheme to reduce Fort Pulaski by establishing massed mortar batteries on nearby Tybee Island. He was promoted to Brigadier General of Volunteers on April 28, 1862.

He was placed in charge of Union military operations at Charleston and successfully managed to take Morris Island and other nearby islands, establishing himself at Battery Wagner which he renamed Fort Gregg. He was promoted to Major General on July 10, 1863. He was unable, however, to secure the harbor and take Charleston.

He was transferred to the Army of the James under General Benjamin F. Butler in May of 1864. He again found himself pitted against General Beauregard and "was bottled up at Bermuda Hundred". He defended Washington against a raid by General Jubal Early but was severely injured when his horse fell on him. He was placed in command of the Department of the South in February 1865, when he revisited Fort Sumter and submitted a report as to its condition subsequent to its capture.

He emerged from the war a Major of Engineers (having resigned his volunteer commission) and oversaw the reconstruction of Fort Sumter (1870-75). He was promoted to Lieutenant Colonel in 1874 and Colonel in 1883. In the meantime he had a distinguished professional career serving on a multitude of engineering boards and commissions, and writing a number of learned books and treatises on the subject. He died in Brooklyn, New York, on April 7, 1888 (Warner, 1964, pp. 176-77).

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PROJECT INFORMATION

During the summer of 1991, the Historic American Buildings Survey conducted a field recording project of the site which included 21 sheets of drawings showing the existing condition of the walls, casemates, officers' quarters and barracks' ruins. Also included were three interpretive sheets. The first two showed the appearance of the fort in 1860, prior to Major Anderson's occupation. These drawings were a fusion of the numerous engineering documents that are available at the Visitors' Center of the Fort Sumter National Monument. The third sheet was a reproduction of the condition of the fort at the time of its capture on February 18, 1865, which accompanied General Gillmore's report. Photographs and field notes (including a precise survey of the inner and outer walls) complete the documentation.

The documentation of Fort Sumter was undertaken by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief; and was directed by Joseph Balachowski, HABS Architect and project leader, in conjunction with the National Park Service, Southeast Regional Office and Fort Sumter National Monument, John Tucker, Superintendent. The measured drawings were prepared by Supervising Architect James N. Ferguson (University of Florida), Architectural Foreman Richard S. Naab (The Catholic University of America), and Architectural Technicians Peter Stehrer (HTBLA- Krems, Austria, US/ICOMOS), Edward A. Stork (Santa Clara University) and Thomas W. Williams (Auburn University). The historical report was prepared by James N. Ferguson, and edited by HABS Historian Catherine C. Lavoie. The large-format photography was undertaken by HABS Photographer Jack E. Boucher.

ADDENDUM TO:
FORT SUMTER
Fort Sumter National Monument
Charleston vicinity
Charleston County
South Carolina

HABS SC-194
SC,10-CHAR.V,3-

PHOTOGRAPHS

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